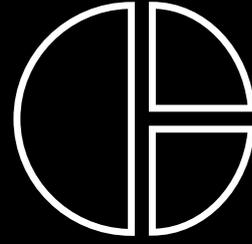


CONSTRUCTION
CHEMICALS
PRODUCT
CATALOGUE



2021



CERMIX
SOLUTION EXPERTES

Not: All recommendations and instructions on the technical catalogue are generally based on our experience and laboratory tests. Please consult us for technical advice for applications on special surfaces not mentioned in the technical catalogue. Our company reserves the right to update the information on the technical catalogue in case of technical necessities without prior notice. The technical sheets in the technical catalogue cannot be used as a guarantee letter for any circumstance. Our company cannot be hold responsible for the false values or technical statements caused by printing mistakes. This new catalogue supersedes the previous editions.

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Koramic Construction Chemicals

In 1998, Koramic Construction Chemicals was established in accordance with a 50-50% Partnership Agreement between Koramic Building Products S.A., a Belgian Company, and Eczacıbaşı Group.

100% of shares in the company were transferred to Koramic Group pursuant to an agreement concluded in June 2011, and the new trade title of the company became Koramic Yapı Kimyasalları Sanayi ve Ticaret Anonim Şirketi

In 2019, Koramic Building Products S.A. and Tekkon Group have signed a 50-50% Partnership Agreement.

Objectives of the Company are to pioneer the development and production of new products for the construction and construction chemicals sectors in Turkey; to make contributions to the maintenance of quality in sectoral products; and to produce systematic solutions in the field of appropriate use of these products.

Our Corporate Goal

To be an innovative, high quality, reliable, environmentally-conscious, human-oriented, leading company in the construction chemicals industry at the local and regional level.

The purpose of our Organisation is to be a leader in the construction chemicals industry. It is aimed to reach this goal by continuously investing in R&D to develop our product portfolio in accordance with the ever-changing needs of our industry, while continuously improving our quality control and service standards in accordance with our Quality Policy and Certificates. It is the goal of Koramic Construction Chemicals to become a local and global leader in the sector.

It is the primary strategy of Koramic Construction Chemicals to introduce the technologies we have developed to the Middle East and Africa construction sectors and to contribute to the development of the building sector in these geographies.

To reach our Corporate Goal;

Colleagues and Community: To ensure that our colleagues reach their full potential by providing a safe and efficient working environment. To provide employment and add value to communities in the regions and countries where we carry out our operations.

Partners: To add value to the operations of our suppliers and customers by increasing cooperation, efficiency and profitability.

Corporate: To increase our presence as a construction industry solutions partner in the regions we operate. To take advantage of the opportunities we encounter, to expand our solution portfolio and to take advantage of economies of scale.

Our Values

Business Ethics: The success and future of our business depends on the priority we place on ethical values. The reputation of our company and operations in the sector is vital. All of the decisions we make are in accordance with the rules and regulations of the regions we operate in. Apart from customer and supplier trust, our ethical values provide an environment of trust within the company and increase our efficiency as a community. Our respect for our colleagues and partners affects the success of our company.

Quality: The satisfaction of our customers is our top priority. In order to achieve this priority, we optimize our supply chain, operation and services according to the Quality Control Standards we have determined. Quality Control is an indispensable part of our corporate culture. We are aware that it is insufficient to reach material goals in order for our company to be considered successful; real success comes from increasing the happiness and indirect performance of our colleagues by creating healthy, safe and positive working conditions. As a company, we always give priority to the health of our employees and partners.

Leadership: Being fast, flexible and innovative in challenging markets and mature sectors reinforced our leadership and helped us achieve results. In the future we will continue to be the Pioneer of our industry.

Sustainability: Koramic Construction Chemicals we realize that the only way to create added value in our sector is to share our resources in a sustainable and rational way. Our minimum waste policy and our efforts to reduce our carbon emissions are the biggest indicators of the importance we give to sustainability.

Environmental Awareness: We aim to comply with environmental laws, norms and other demands in all the work and production processes we carry out in order to contribute to the development, production and maintenance of quality in new products.

By investing in technology and our processes we increase production efficiency. We prioritize using natural resources efficiently and developing energy-saving products.

Production Facilities

Bozüyük Factory

The Bozüyük Factory is built with advanced Technologies, and has the largest closed production facility in our region. The whole production process, from input of raw materials to the dispatch is automated.

Total area : 22.000 m²

Total closed area : 8.000 m²

Annual production capacity: 188.000 tons/years

Mersin Factory

Mersin factory commenced production in 2007. It provides great advantage to the company having major roles in domestic and international target markets, while ensuring a solid penetration to the markets. Factory's distance to Mersin Port, Adana and Gaziantep are 23 km, 75 km and 250 km, respectively. The factory has a flexible production line, where grey and white powder productions can be carried on simultaneously.

Total area : 7.500 m²

Total closed area : 2.100 m²

Annual production capacity: 60.000 tons/years



CERMIX Construction Chemicals

- Adhesives*
- Joint Fillers*
- Waterproofing Materials*
- Additives & Primers*
- Mortars & Anchors*
- Flooring Products*
- Sealants and Mastics*
- Thermal Insulation Systems*



CERMIX is where;
product, solution, performance and service is!



Professional Support

Website
www.cermix.com.tr *Our website offers up to date information about our products and solutions. It is even easier now to utilise our solution house tool, where you will find the right product selection charts and visually supported technical specifications of various tiling applications. You will find all access information of our sales points, and interactive tools and digital materials supporting you in every technical detail.*

Technical Support *You can receive professional support and technical advice at all times about Cermix products and solutions. We shall recommend you the most suitable Cermix products and solutions based on your project details and your requirements.*

Technical Seminars and Training Courses *We value product. and application training courses. These are essential to ensure that our products are applied correctly and our clients needs are met in the most efficient and effective way.*

Our training courses are based on a "appropriate system & appropriate application" principal.

Please do not hesitate to contact us for:

- Product introduction sessions.*
- Detailed technical and application sessions.*
- In person application sessions at our training facilities in Bozüyük/Mersin.*



Tiling Techniques

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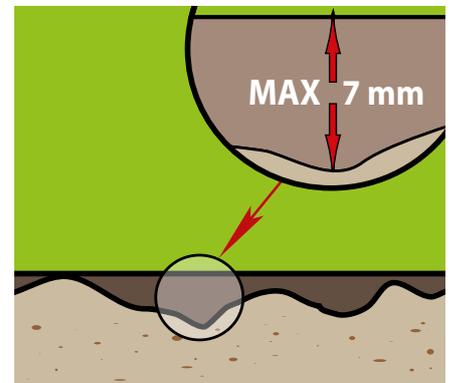
SUBSTRATE PREPARATION



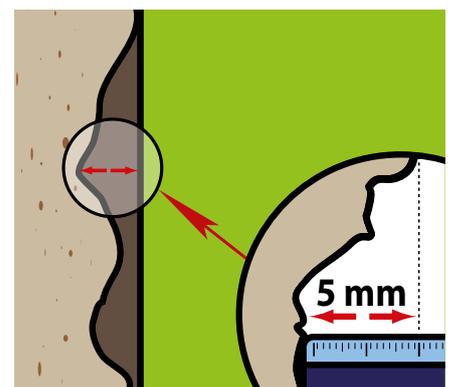
SUBSTRATE FLATNESS

The substrate should be flat for an accurate and easy tiling application.

- The deepest point of the application surface in 2 m long straight gauge should not exceed 7 mm.

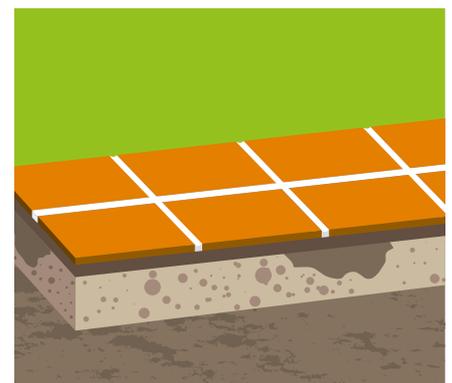


- The surface deviation is limited to 5 mm under 2 m long straight gauge for substrates of floors exposed to heavy loads and heavy pedestrian traffic, external facades, and pool shell screeds and walls.



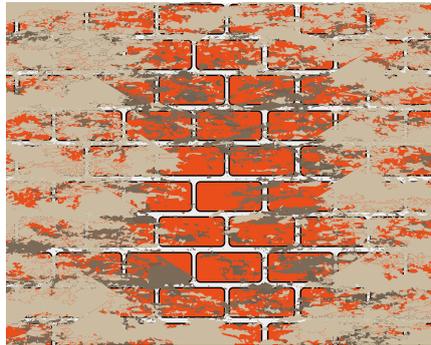
- For larger deviations, the surface should be smoothed with either surface repairing and smoothing plasters or leveling materials.

- Tile adhesives are not leveling materials. Thus, it is improper to use them for substrate smoothing and leveling purposes.



SUBSTRATE STABILITY

Disbonding, cracking, covering deformation and etc. problems may arise at later stages of tiling or during servicing life of the tiled areas. The substrate should be stable in order to prevent problems originated from bonding failures of the adhesive on the substrate.



- Hardness and resistance of the existing plaster or screed should be well checked. The surface hardness can be checked by scratching it with a pointed tool (i.e. hammer, screwdriver) superficially in random places of the substrate.



- Loose and unstable surfaces should be removed until the sound and stable layer. Then, the substrate should be leveled with surface repairing and smoothing materials.



In case of an existing covering:

- Loose and bloated existing paint should be removed mechanically. Notching or sanding the surface will provide suitable bonding adhesion of the adhesive.



- Wooden floors and pannels must not move or flex when exposed to loading (stepped on or pressed), which will cause instability of the covering leading to disbonding and cracking problems. The loose boards or parts should be replaced, pannels laid on joists or battens should be reinforced and fixed to stabilize by anchoring every 30 cm max.



- Adhesion and rigidity of the existing tile or PVC covering should be checked by tapping a hammer or scraper. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product.

SUBSTRATE PREPARATION

SUBSTRATE CLEANLINESS

The substrate should be clean for a proper bonding of the adhesive.

Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.

- It is recommended to wash and clean up the surface with pressurized water.
- Residues and stains on existing tiles can be cleaned by appropriate cleaning materials.



• Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.



PRIMING THE SUBSTRATE

Substrates with different formats may have different surface absorptivities (water permeability).

• Gypsum (board, panel and plaster), wooden (board, panel and OSB), cement (board, plaster and screed) based substrates have high surface absorptivity.

• Surface absorptivity for concrete substrate is very low, where glazed tiles or painted surfaces have almost any.



Surfaces with high absorptivity absorb the mixing water of the cementitious adhesive or other mortars very fast. Thus, the mortar loses out its mixing water and this will cause early but improper setting leading to weak adhesion and disbonding of the covering.

• To control surface absorptivity the surface should be wetted. If the surface absorbs the water fast (in 30-45 seconds), then the surface is segmented as high surface absorptive.



• Sealing with appropriate primers; the high absorptivity of surfaces should be reduced and balanced, where surface adhesion should be improved for impervious substrates with primers including thick fillings (thick fillings expand bonding surface)



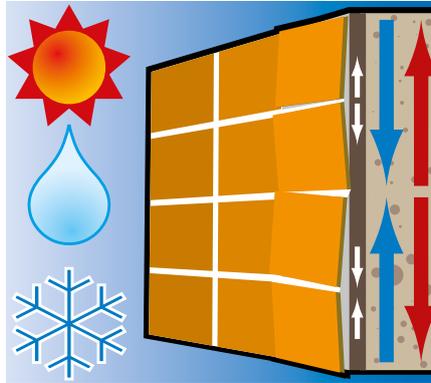
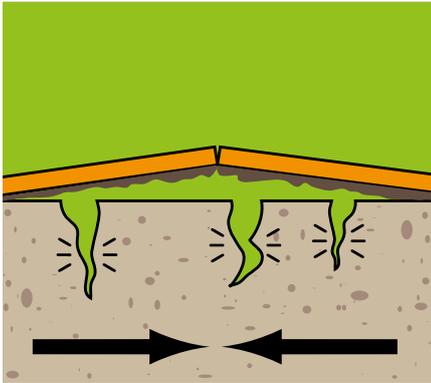


- When tiling during hot, windy and dry conditions, it is inevitable that the mortar will lose its mixing water very fast due to rapid evaporation. Prior to spreading the mortar on the substrate, wetting or damping will decrease substrate surface temperature reasonably. For better performance, the surface should be sealed with appropriate primers.

- Primers are liquid and can be applied easily on the surface with a roller or brush. The surface should be completely sealed in one or two coats, forming pinhole free film coat.

FRESH SUBSTRATES

It should not be tiled onto new screed, plaster or concrete. Leave fresh substrate for at least 6 weeks to fully set, before substrate repairing, surface smoothing and tiling.



- In external facade applications, the duration extends to minimum 3 months. Otherwise, mechanical and thermal movements (shrinkage, expansion and contraction) on the substrate arising during curing period may reinforce bonding problems.

FLATTING OF THE DEFECTED SUBSTRATES

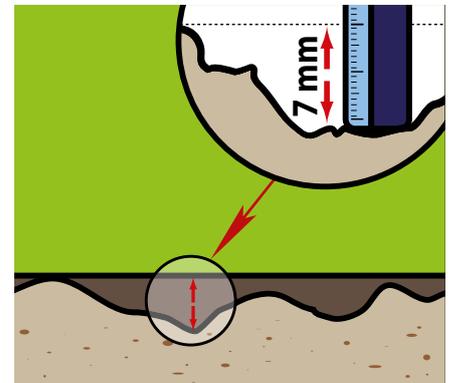


SUBSTRATE FLATNESS

The substrate and surface quality is essential for an accurate, easy and reliable tiling application. Uneven and unstable substrates should be repaired and smoothed prior to commencing tiling.

For proper bonding of the tile on the substrate with a full contact (for full spreading of the adhesive on tile back) performance, surface smoothness is essential.

- The deepest point of the application surface in 2 m long straight gauge should not exceed 7 mm.
- The surface deviation is limited to 5 mm under 2 m long straight gauge for substrates of floors exposed to heavy loads and heavy pedestrian traffic, external facades, and pool shell screeds and walls.



- Loose and unstable surfaces should be removed until the sound and stable layer. Then, the substrate should be leveled with surface repairing and smoothing materials.



- Surfaces with high absorptivity absorb the mixing water of the cementitious adhesive mortars very fast. Thus, the mortar loses out its mixing water and this will cause early but improper setting leading to cracks and weakness of the screed or plaster coat. For better performance, the surface absorptivity should be reduced and balanced by be sealing with appropriate primers.

- To prevent shrinkage cracks on the screed or plaster, the surface should be damped 3 days after application.

- Excluding local repairs; it should not be tiled onto new screed, plaster or concrete. New screeds and concrete shrink as they dry. Leave fresh substrate for at least 6 weeks to fully set, before substrate repairing, surface smoothing and tiling.



FLATTING OF THE UNEVEN AND UNSTABLE FLOOR SUBSTRATES

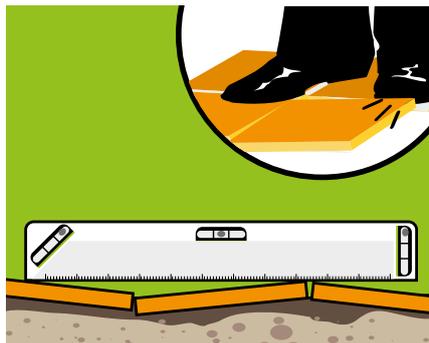
The uneven and unstable floor substrates should be flatted with suitable surface repairing and smoothing mortars, particularly for proper applications of big sized tiles.



- Weak substrates may smash due to the applied heavy loads and vibration. This will cause the substrate to lose its load bearing capacity and adherence performance. Covering will disbond, deform or crack, when the substrate cannot bear the loads with sufficient strength.



- Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.



- If the substrate is not leveled, this will cause edges on the covering. The edges will affect aesthetics of the covering and block motion.



The substrate should be smoothed and stabilized with either surface repairing and smoothing plasters or leveling compounds. **(CERMIREP R4 T)**



- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the covering and substrate. Expansion joints absorb the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Expansion joints should be insulated by using proper profiles or mastics.

FLATTING OF THE DEFECTED SUBSTRATES

FLATTING OF THE UNEVEN AND UNSTABLE FLOOR SUBSTRATES

The uneven and unstable wall substrates should be flatted with suitable surface repairing and smoothing mortars, particularly for proper applications of big sized tiles.

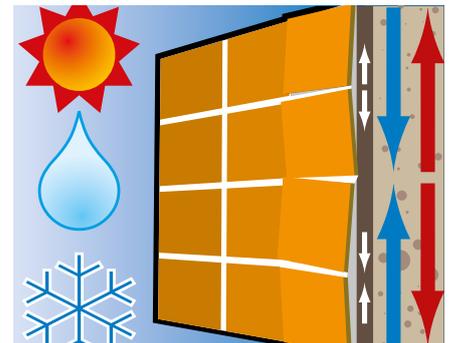
- The substrate should be smoothed and stabilized with appropriate surface repairing and smoothing plasters.



- Sealing with appropriate primers; the high absorptivity of surfaces should be reduced and balanced, where surface adhesion should be improved for impervious substrates with primers including thick fillings (thick fillings expand bonding surface). Sealing will enhance bonding performance of the plaster on the substrate.



- Cold joints between block pannels might be covered with plaster (plaster poured out at 10 cm width along each side of the joint). Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move.



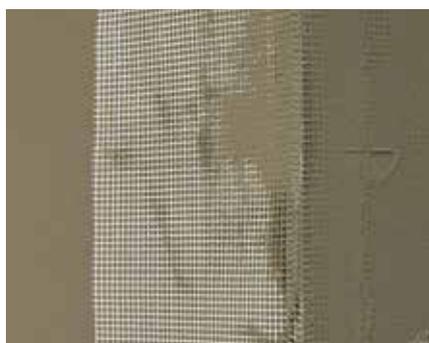
- Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.



As a preparation to paint coating, the substrate should be plastered with two coats;

- To prevent cracks that may form on plaster surface due to shrinkage in thick plaster coats and thermal effects of outdoor conditions, a reinforcement mesh (alkali resistant type) can be applied between coats. Reinforcement mesh is embedded in the first coat of plaster, when its still wet as recommended by the reinforcement manufacturer.

- After 3 days of curing duration of the first coat, the second coat is applied for a smooth and even surface ready for painting.





• Adhesion and rigidity of the existing tile covering should be checked by tapping a hammer. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product. Before plastering onto existing tiles, surface adhesion should be improved for impervious the substrate with primers including thick fillings.

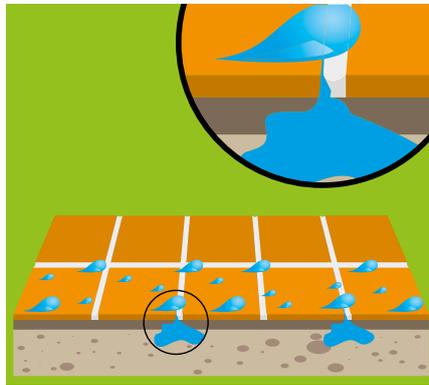




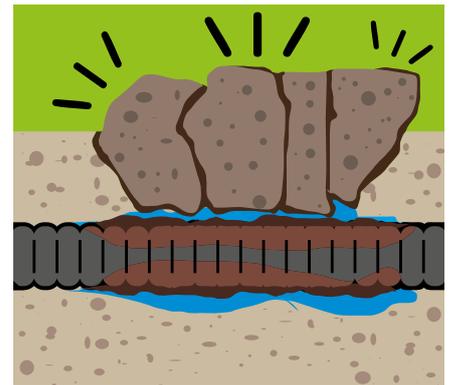
NECESSITY OF WATERPROOFING

Before tiling in areas, where will be exposed to water effect such as wet areas, outdoor terraces and pools, the substrate should be coated with appropriate waterproofing materials (resistant to positive water pressure).

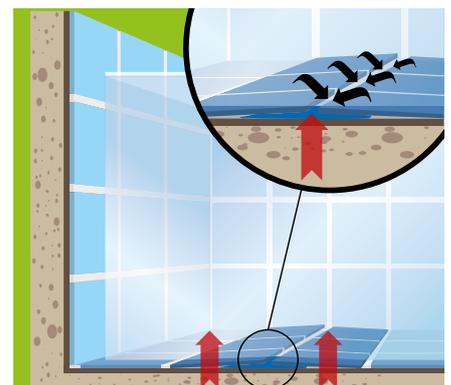
- The water may permeate through the pores or voids on the covering and joints into the adhesive and substrate. The water permeated by the substrate may encourage moisture and mould growth. The trapped water may seep through the substrate to lower floors in buildings and cause further problems.



- If trapped water in the substrate runs to the concrete building structure and contacts with reinforcement elements, it will cause corrosion of the elements. Corrosion will cause volume expansion in the concrete and reinforcement causing internal stresses and cracks, thus resulting with a vulnerable building structure.



- In case of outdoor pool and terraces; the water seeped under the covering may freeze in cold weathers. This will cause volume expansion and tension under the covering. Tension may cause disbonding, cracking or deformations of the covering.



WATERPROOFING APPLICATION (AGAINST POSITIVE WATER PRESSURE)

Most of the waterproofing materials particular to tiling are applied by smearing the material on the substrate.



- For application in wet areas and small terraces semi-elastic waterproofing materials will provide required performance, where in pools and large terraces full-elastic materials are required. (**CERMIPROOF SF, CERMIPROOF FF, CERMIPROOF FF PLUS**)



Vertical and horizontal corners may work in different axis under loading of the structure. These forces will generate shear forces along cold joints. These joints form the critical points with crack possibility.

- Even though a waterproofing material is required to be flexible, its flexibility may not be sufficient to absorb the movements arising at the cold joints (internal corners) of the applied area. Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints.



- If the area subject to water-proofing will be exposed to continual water pressure (such as pools or water tanks) reinforcement of the waterproofing coating is recommended strictly. Reinforcement should be done with appropriate reinforcement materials (such as alkali resistant reinforcement mesh). Reinforcement is embedded in the first coat of waterproofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.



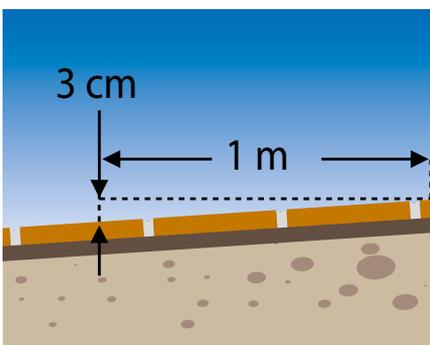
Waterproofing material is applied over the surface using a stiff brush or a paint roller. 2 coats of application is recommended. It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. The second coat should be applied as soon as the first coat has dried (reached initial set). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).

- Before applying waterproofing on the substrate, surface adhesion should be improved with appropriate primers, particularly for high porosity substrates.

- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.

- Coats of waterproofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have voids possibly causing leakage.

- Insulation details of structures on the covering (such as pool lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate waterproofing solutions.



MOVEMENTS OF THE SUBSTRATE AND COVERING



MECHANICAL MOVEMENTS

Movements due to substrate and covering flexibility:

When tiling onto flexible substrates, covering and substrate should deflect in conformity according to the load applied. The adhesive should be flexible to absorb the amount of movement or in mismatch the tiles will either delaminate or crack.

- Flexible floors and walls (timber floors and gypsum panels) will deflect, spring, vibrate or move according to the load applied.



- Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles.

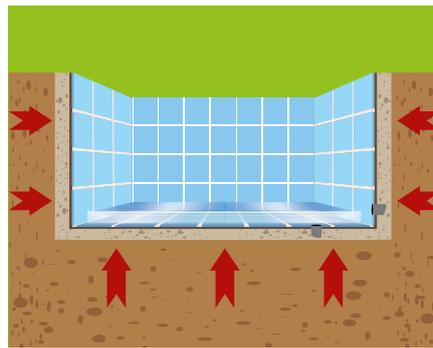
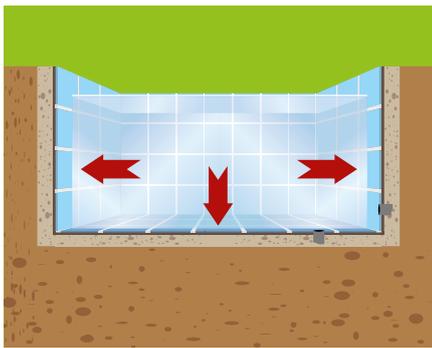
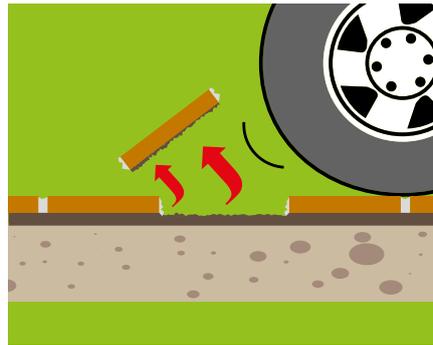


- Tiles are rigid and brittle whereas timber floors or gypsum panels are flexible. Therefore, tiles are incapable of bending in accordance with the substrate defined.

- Large tiles have less joint area to absorb any movements on the covering. This may cause cracking of the joints.



Movements due to loads.



- The floors of public places (hospitals, malls, public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering. The structure must be strong enough to support the expected load including tiles, adhesive, grout and the screed if needed without undue movement.

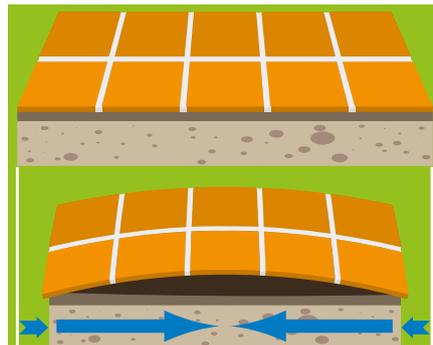
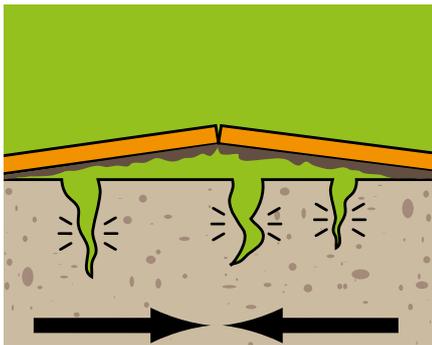
- The structure must be strong enough to support the expected load including tiles, adhesive, grout and the screed if needed without undue movement.

Movements in pools due to water pressure varying with weight water.

- After tiling the pool, once the pool is filled there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool. These movements will cause tension in the covering system.

- When the pool is emptied inertial forces will be formed on the pool walls and base. Thus, the bond strength of the adhesive must not be affected by the movements caused by opposite forces.

Movements due to shrinkage of new screeds, plasters and concrete:

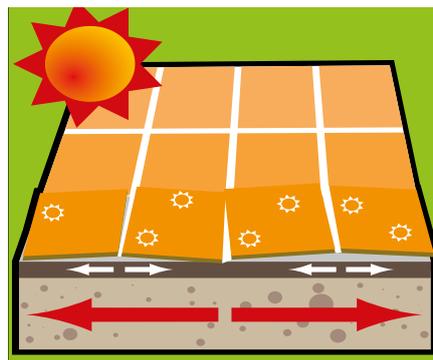
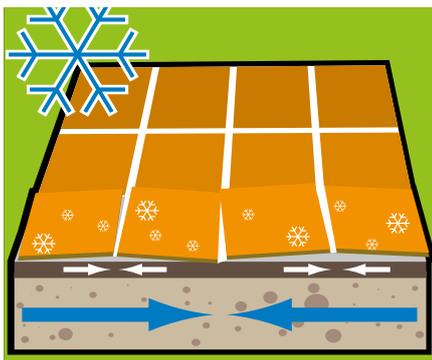


- Newly laid cementitious screeds, plasters and concrete will shrink during curing period. When they are fresh they contain relatively large amounts of water. Excessive water retained in the binder is evaporated during curing. Shrinkage occurs to compensate the volume of water lost.

- For at least 6 weeks should be allowed for the binder to stabilize and minimize shrinkage. Tiling very soon may cause tiles cracking or blowing away from their base.

THERMAL MOVEMENTS

Movements due to thermal changes:



All substrates and covering systems (tile, adhesive and grout) will shrink and expand naturally due to temperature fluctuations and humidity. Particularly when seasonal temperature changes are severe, shrinkage and expansion will occur.

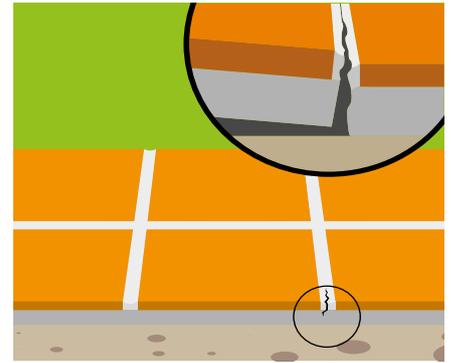
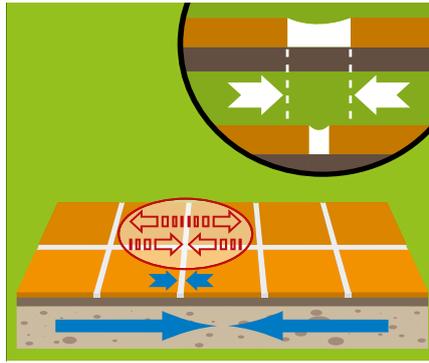
- Because of different coefficients of thermal expansion and elasticity characteristics of the materials forming the substrate and the covering system, shrinkage and expansion rates will naturally be different for each material.



- Any movement caused by shrinkage or expansion will cause stresses to form between the substrate and the tiling layer as both move at different rates. These stresses can cause cracks and fracture or delaminating of tiles.

MOVEMENTS OF THE SUBSTRATE AND COVERING

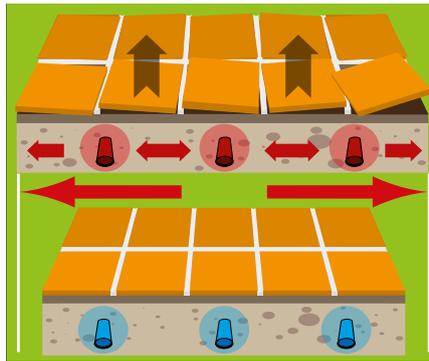
- The joint fillers filled into joints should be flexible sufficient to absorb the movements occurring in horizontal with the surface. Too stiff joint fillers will fracture or depart from the tiles' edges.



- In case of outdoor pool and terraces; the water seeped under the covering may freeze in cold weathers. This will cause volume expansion and therefore tension under the covering. Tension may cause delaminating, cracking or deformations of the covering.



- Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed at the interface between the tile and the adhesive. At weak bonded parts, the tiles may delaminate or blow away from their base.

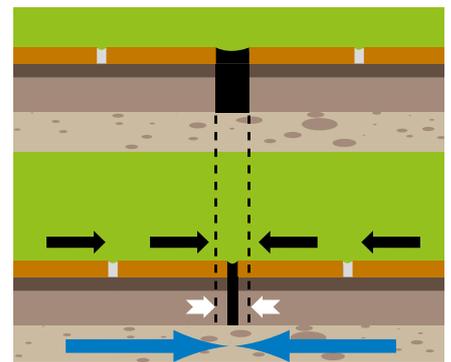
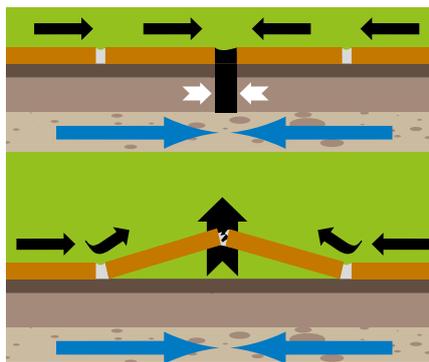


- Same rule applies for the substrates on heat transmitting systems and insulation applications.

USE OF EXPANSION JOINTS

Expansion joints on floors:

- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the covering and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area.



- Expansion joints absorb the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering.





- Any movement joints in the building structure must be carried through the tiling layer.

- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints.

- When the area is smaller than 4m x 4m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.

- Expansion joints should have minimum width of 6-10 mm.

- Expansion joints should be laid where tiling meets other materials, along all internal corners (wall and floor intersections). Skirting should be fixed upon to the completion of tiling. (**CERMISIL AS**)

- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.

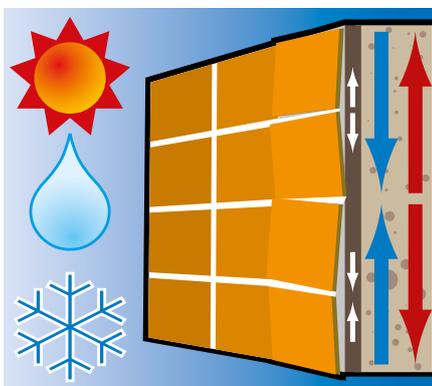
- Expansion joints should be insulated by using proper profiles or mastics. Cementitious joint fillers are not appropriate for expansion joints.



Expansion joints on facades:

- On facades; along storey transitions, in internal corners, overlapping wall coverings, wall-floor intersections and on areas > 3 m x 3 m expansion joints should be applied. Expansion joints should have minimum width of 10 mm. Skirting should be fixed upon to the completion of tiling. Expansion joints should be insulated by using proper profiles or mastics.

- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.



Compatibility of the substrate and covering system:

- In tiling application which are exposed to mechanical and thermal loads, compatible products (substrate-selaign-adhesive-tile-grouts) with elastic character should be selected for corresponding to the movements (expansions and shrinks) caused by thermal and mechanical effects.



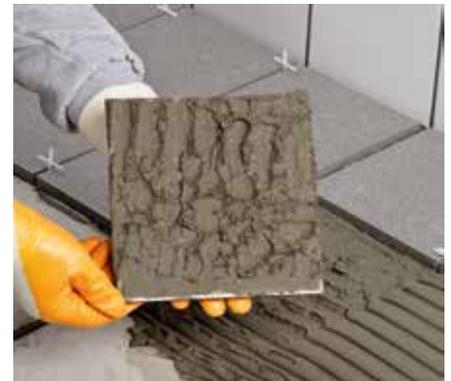
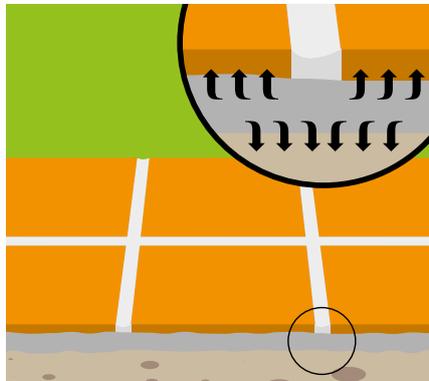
BONDING MECHANISM OF A TILE ON THE SUBSTRATE

The adherence of a tile adhesive on the substrate and back of tile are subject to two types of bonding mechanisms:

Mechanical bonding.

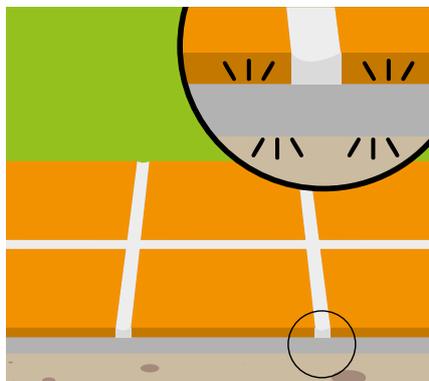
- Standard type adhesives, applied when mixed with water (cement as mineral binding content) or ready mixed as a dispersion (acrylic as mineral binding content), engages physically with small irregularities, pores (absorbed by the substrate and tile with capillary forces) etc. in the surface and forms a strong bond when adhesive sets in those pores, resulting in a mechanical keying action to bond.

- (Tile is referred to covering materials; ceramic wall and floor tiles, porcelain tiles, glass mosaics and tiles, natural stones and marbles, and etc.)



Physical bonding.

- When the tile or substrate has an impervious surface, then the hydraulic adhesives cannot be absorbed into the material and there is no allowance for a mechanical bonding. The bonding should be provided only by the surface itself. Thus, organic polymers binding agents are added into the adhesive content (polymer modified adhesives) to provide a strong bonding of the adhesive on the tile or substrate surface (polymer binder is referred to reactive resins or thermoplastic dispersions which adhere by chemical bonding, Van der Waals forces and etc.).



TS EN 12004-1 Standard

EN 12004-1 Standard identifies the test and performance criteria to classify tile adhesives. According to the standard, the adhesives are classified by their performances.

Tile adhesives are categorized according to their chemistry and these categories are abbreviated by letters of the alphabet:

C Cement Based

- Cement based powder adhesive is mixed with a specific amount of water or some other liquid to use.

D Acrylic Dispersion Based

- Water emulsion based paste adhesive with synthetic polymer additive. It is ready for use.

R Reactive Resin Based

- Two or more components (including one component as the resin and one another as the hardener) are mixed in specific amounts to use.

The adhesive in one of the adhesive chemistry categories is classified into one of the two performance classes according to its performance level in defined tests:

Class 1

- (Normal) **Standard Performance** adhesive. It validates the minimum required performance level in tests.
- It is suitable for standard applications requiring no special performance.

Class 2

- (Improved) **High Performance** adhesive. It validates higher performance levels in comparison to standard performance adhesives.
- It is suitable for applications with types of works subject to coercive environmental forces requiring special performance.

Tensile Strength

	C1 D1	C2 D2
After 28 days	≥ 0,5 N/mm ²	≥ 1 N/mm ²
Aging with heat	≥ 0,5 N/mm ²	≥ 1 N/mm ²
Aging with water	≥ 0,5 N/mm ²	≥ 1 N/mm ²
Freeze-thaw cycle	≥ 0,5 N/mm ²	≥ 1 N/mm ²
Open time (20 minutes)	≥ 0,5 N/mm ²	≥ 0,5 N/mm ²

Standard defines three optional characteristics for a class 1 or class 2 adhesive:

F Fast Setting

- Tensile strength (max. 6 hours later) ≥ 0,5 N/mm²
- Ideal for tiling applications when short drying time is required, particularly for renovation works, and for cold and high humidity conditions that extends drying time.

T Reduced Slip

- Slip ≤ 0,5 mm
- Ideal for tiling applications of large and heavy tiles on walls.

E Extended Open Time

- Tensile Strength (fixing at the 30th minutes of open time) ≥ 0,5 N/mm²
- Ideal for tiling applications when long working time is required, particularly for large areas, and for hot and dry conditions that shortens drying time.



According to its deformability level the adhesive is classified into one of the two performance classes:

- Deformability features are required for tiling applications such as for pools, industrial floors subject to heavy loads, facades affected by severe temperature fluctuations.

S1 Deformable Adhesive

- Deformation ≥ 2,5 mm but < 5,0 mm

S2 Highly Deformable Adhesive

- Deformation > 5,0 mm



REQUIRED-ESSENTIAL FEATURES FOR A TILE ADHESIVE

Below are the features of a tile adhesive when it is wet, during application and before it hardens:

- **Workability** (easy application and good spreading performance of the adhesive).
- **Water retention capacity** (for sufficient hydration and bonding performance of the cement based adhesive even on high porosity surfaces).
- **Reduced slip** (non-slipping of the tiles in the new adhesive bed and ensuring fast and efficient wall tiling).
- **Wetness capability** (on the substrate and tile back).
- **Sufficient open and adjustment time.**

Below are the features of a tile adhesive after it hardens and completes its curing:

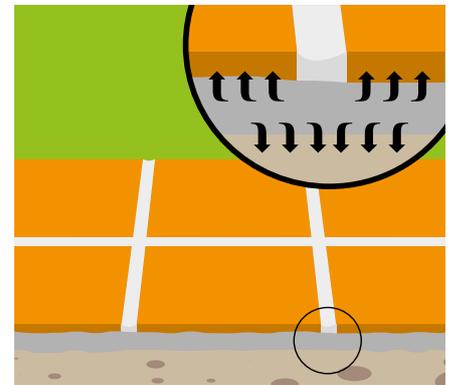
- **High bonding performance** (between the tile and the substrate).
- **High deformability** (the adhesive should absorb the stresses forming between the substrate and the tiling layer in fluctuating thermal conditions).
- **Reduced water absorption** (hydrophobic dispersion additives providing water repellency).

FACTORS AFFECTING ADHESIVE SELECTION

Surface absorptivity of the tile (water permeability):

• When the adhesive contacts with tile back, it engages physically with small irregularities, pores (absorbed by the substrate and tile with capillary forces) etc. in the surface and forms a strong bond when adhesive sets in those pores, resulting in a mechanical keying action to bond.

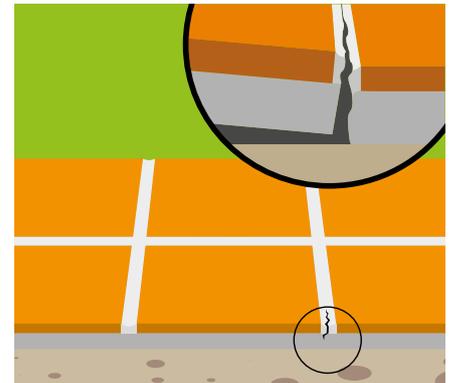
• Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).



• When tiling is done with a standard performance adhesive onto an impervious substrate, the adherence is much weaker resulting in tiles de-bonding from the substrate.

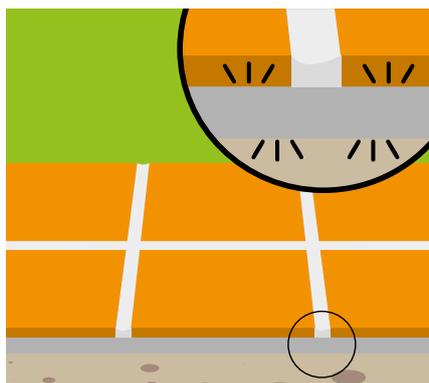
• When the covering materials has very low or no absorptivity (such as porcelain or glass), then the standard type adhesives cannot be absorbed into the material and there is no allowance for a mechanical bonding.

• Impervious substrates may have no irregularities or pores where the adhesive would engage.



• Bonding of the adhesive onto impervious surfaces (of the substrate or tile back) with a sufficient adherence performance is yielded by chemical additives named polymers (organic resins). Polymers provide the physical bonding of the adhesive.

• To provide improved fixing, tile may be produced with irregularities, pores or roughness on the back.



• According to definitions above, standard performance adhesive is suitable for fixing tiles with water absorption rate $\geq 3\%$ (wall and floor tiles, marble and etc.), whereas high performance adhesive is required for fixing tiles with water absorption rate $< 3\%$ (glass mosaics, porcelain tiles and etc.). However; if coercive environment forces are subjected after tiling, high performance adhesive should be chosen.

Surface absorptivity of the substrate (water permeability):



- Substrates with different formats may have different surface absorptivities (water permeability). Gypsum (board, pannel and plaster), wooden (board, pannel and OSB), cement (board, plaster and screed) based substrates have high surface absorptivity (water absorption rate ~ 5-30 %). Surface absorptivity for concrete substrate is very low, where glazed tiles or painted surfaces have almost any (water absorption rate ~ 0-1 %).



- Sealing with appropriate primers; the high absorptivity of surfaces should be reduced and balanced to enhance bonding capability of the substrate.

- When tiling onto substrates with low porosity (water absorption rate < 3%), high performance adhesive should be chosen.



Acrylic dispersion based ready-mixed adhesives are dispersions of polymers and fillings in water and harden and do gain strength by losing the excessive water retained in its form and dry out. On highly absorptive substrates, these adhesives can be applied without priming the substrate.

- The adhesive performance class should be chosen according to the tile format and technical requirements.

Flexible substrates:



Wooden floors and pannels, gypsum boards may move or flex when exposed to loading (stepped on or pressed), which will cause instability of the covering leading to disbonding and cracking problems. Before tiling application, the loose boards or parts should be replaced, pannels laid on joists or battens should be reinforced and fixed to stabilize.

- When tiling onto flexible substrates, covering and substrate should deflect in conformity according to the load applied. The adhesive should be flexible to absorb the amount of movement or in mismatch the tiles will either delaminate or crack.

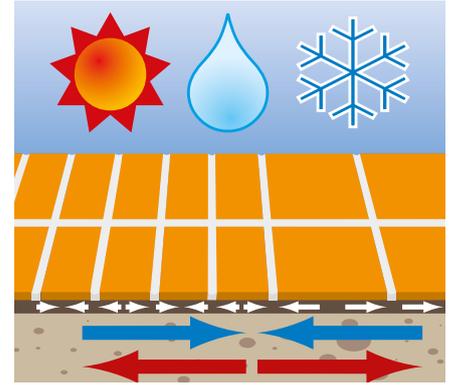
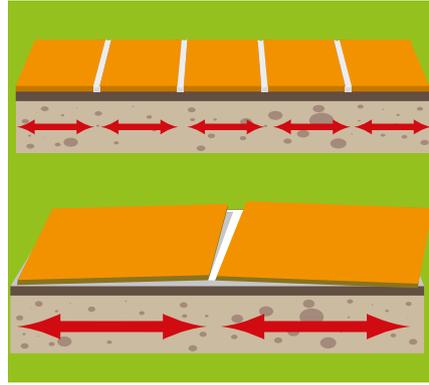
- High performance and deformable adhesives have flexible character.

TILE FIXING

Covering material size and weight:

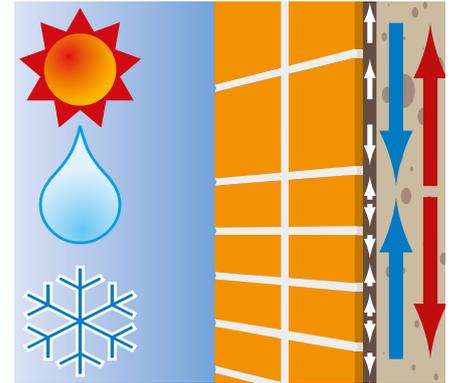
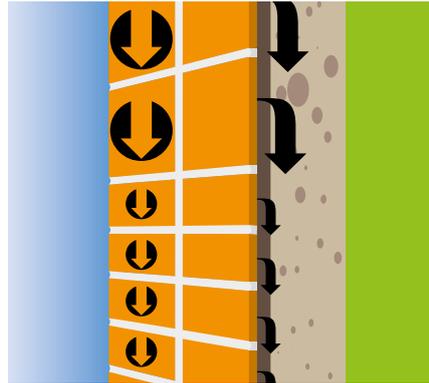
When the adhesive contacts with tile back, it engages physically with small irregularities, pores (absorbed by the substrate and tile with capillary forces) etc. in the surface and forms a strong bond when adhesive sets in those pores, resulting in a mechanical keying action to bond.

- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).

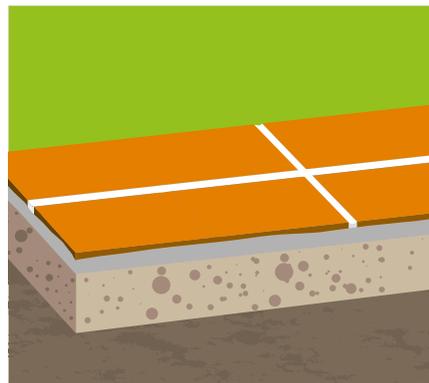


In vertical tiling applications, tile weight per m² is critical.

- Heavy tiles may sag by gravity effect and squeeze the underlying tile. The underlying tile may not resist the sagging load of the upper tile and delaminate from the substrate.
- Large tiles have less joint area to absorb the movements occurring on the covering.



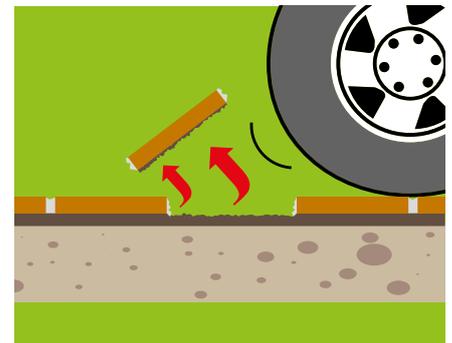
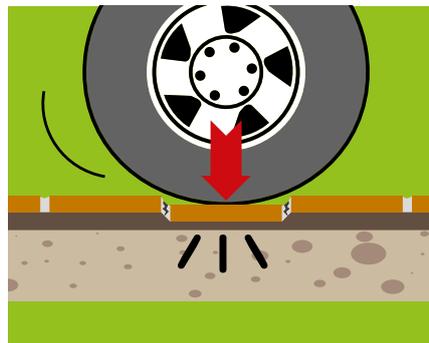
In fixing tiles and natural stones with irregularities on the back or inconstant thickness, selection of a thick bed adhesive will provide an easier and efficient application as the adhesive will perform the leveling to some extent.



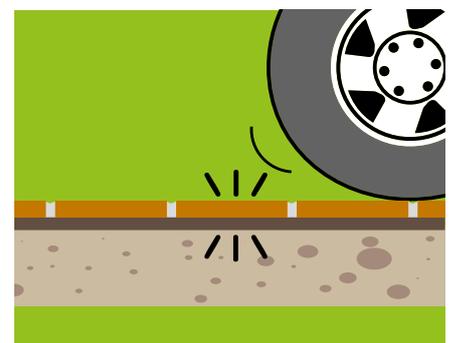
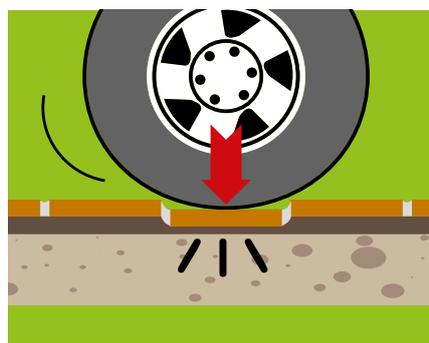
Area of use:

For areas exposed to light pedestrian traffic, standard performance adhesives provide the required technical performance

The floors of public places (hospitals, malls, public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering.



- The adhesive must be high performance and deformable class to bear the expected loads the area is subject to.





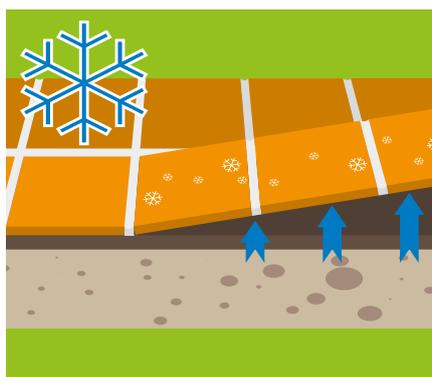
Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.

- For the tile to correspond the loading homogenously on all tile area, full contact of the adhesive on the substrate is required. For even distribution of the adhesive on the substrate with a full contact (for full spreading of the adhesive on tile back) performance, adhesive should have good workability features (easy spread and applied) when applied with a suitable notched trowel.



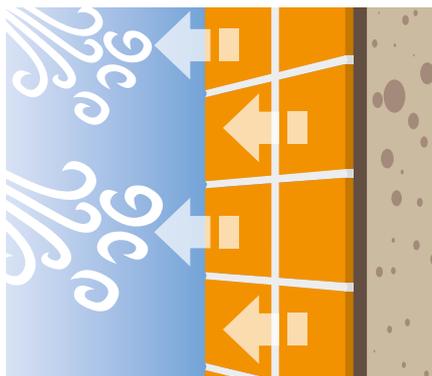
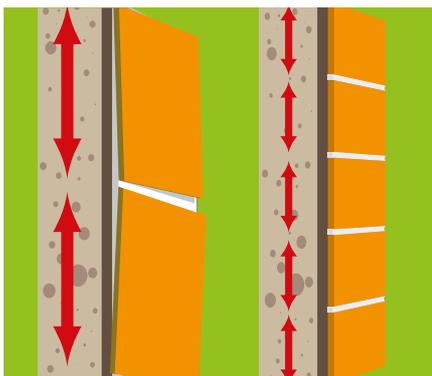
- Adhesive with a fluidic form is required for the adhesive to easily spread and fully cover the tile back. When loaded heavily, in order not to smash the adhesive should be thick bed and deformable (flexible).

All substrates and covering systems will shrink and expand naturally due to temperature fluctuations and humidity. Particularly, when seasonal temperature changes are severe, shrinkage and expansion will exacerbate. In case of outdoor pool and terraces; the water seeped under the covering may freeze in cold weathers. This will cause volume expansion and therefore tension under the covering. Tension may cause delaminating, cracking or deformations of the covering.



- The adhesive should be flexible type to absorb the amount of movements with a high performance adhering ability. Additionally, the adhesive should have water repellent property in order to resist the corrosive effects of water.

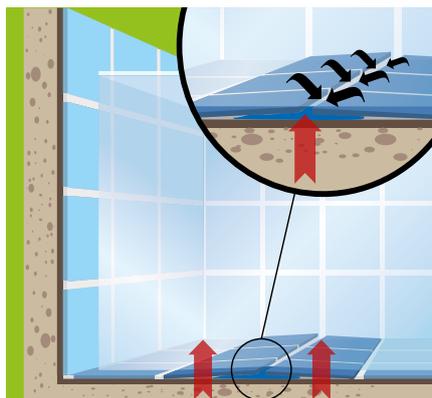
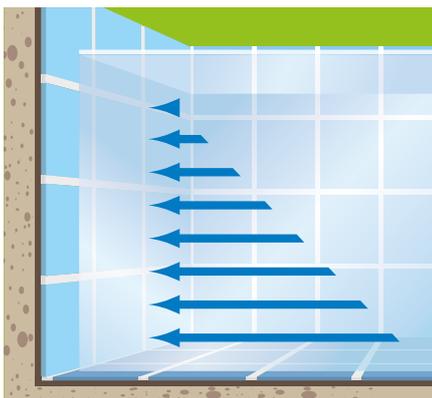
Coverings on external facades are subject to wind loads. The tiles are sucked outwards from its substrate with forces occurring due to the blowing of the wind with varying amplitude.



- Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles when wind loads and thermal loads are subjected.

- In external facade tiling, the adhesive must be high performance and deformable class to bear the expected wind and thermal loads the area is subject to, while ensuring that enough fixing strength is provided to resist gravity loads of tiles.

In pools and water tanks movements occur due to water pressure varying with weight water.



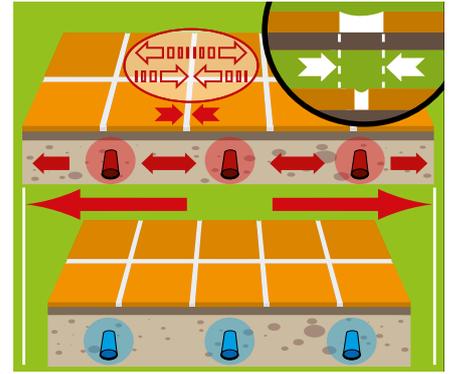
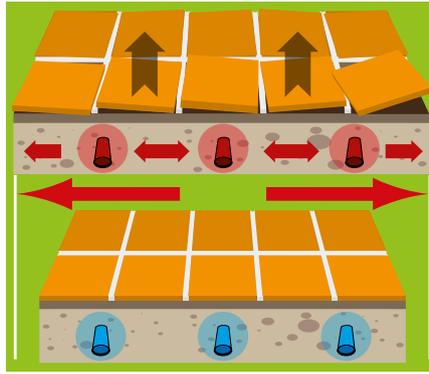
- Once the pool or water tank is filled, there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool. When the pool is emptied inertial forces will be formed on the pool walls and base. These movements will cause tension in the covering system. If tiles crack or blow away from their base under tension, the pool shell will be exposed to the corrosive effects of water.

- The bonding strength of the adhesive must not be affected by the movements caused by opposite forces. High performance, flexible and water resistant adhesives should be selected particularly developed for pool tiling.

TILE FIXING

Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed at the interface between the tile and the adhesive. At weak bonded parts, the tiles may delaminate or blow away from their base. Same rule applies for the substrates on heat transmitting systems and insulation applications.

- In these typical applications, the adhesive should be high performance class providing flexibility enough to work compatible to the movements occurring in the substrate.



Colour and porosity of the tile:

In fixing transparent and light colored tiles and natural stones, particularly when they are highly porous, the covering material may absorb the adhesive. This causes the formation of stain and shades visible on the covering surface.

- A sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.



Time to put into service:

In case of renovation and repair works, tiling may be aimed to be completed in fast.

- Fast setting adhesives provide set times as low as 3 hours compared minimum set time of 24 hours in regular adhesives.

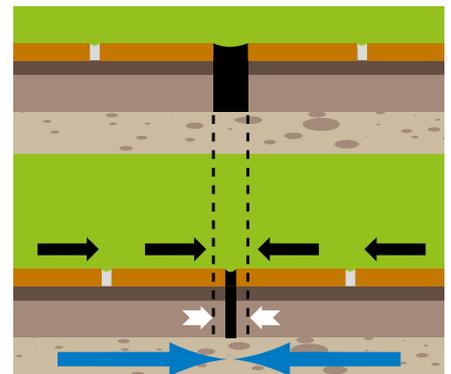
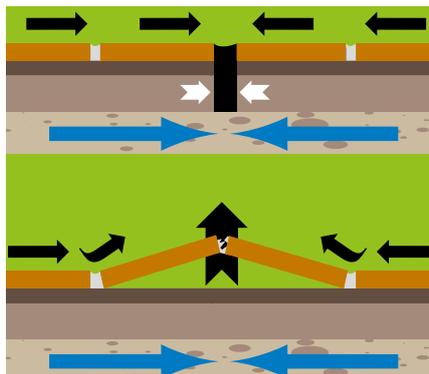
- The adhesive performance class should be chosen according to the tile format and technical requirements.



Use of expansion joints:

The tension formed between the covering and the substrate due to thermal and mechanical loads should be absorbed by use of deformable and flexible type adhesives.

- When tiling on large areas (area > 6m x 6m), the adhesive may not be sufficient to absorb the tension singly. The continuity of the covering should be interrupted by using expansion joints to allow for slight movements and yet to release the tension formed on the covering system.



- Expansion joints should be laid where tiling meets other materials, along all internal corners (wall and floor intersections). Skirting should be fixed upon to the completion of tiling.

- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.





Expansion joints should have minimum width of 6-10 mm. Expansion joints should be insulated by using proper profiles or mastics. Cementitious joint fillers are not appropriate for expansion joints.

- The profiles or mastics should be resistant to bacteria and fungi formation and to the chemicals the area will be exposed to.

- In use of mastics; to save in the amount of mastics to use, the expansion joints are recommended to be first filled with polyethylene elastic filaments with suitable sizes. Then, the mastic should be applied into the joint as well as leveled to the covering.

APPLICATION

Mixing of the adhesive:



C class - cement based powder adhesive is mixed with a specific amount of water or some other liquid to use.

- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.

- Two components adhesive (including one component as the powder and one another as the liquid) is mixed in amounts of the components as specified on the technical legends on the product packaging or technical data sheets.

- The components are mixed (gradually add powder to the clean water or liquid component) to a smooth and homogenous paste in a bin.

D class - acrylic dispersion based paste adhesive is ready for use. Do not add any of water or other additives into the paste.

- For a smooth and homogenous paste, it is recommended to use a low cycled electrical drill-mixer for mixing.
- For adhesives with T – reduced slip, the paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

Fixing tiles:



Apply the adhesive on the substrate with a suitable notched trowel to achieve the required bed thickness.

- Use of notched trowel provides even spreading of the adhesive on tile back ensuring the required bed thickness.

- The type and size of the notched trowel to be selected varies according to the tiling purpose and tile format. In general, when fixing large sized tiles and the tiled area will be exposed to heavy loads, large sized notched trowel should be selected.

TILE FIXING

According to the size of the tiles, fix tiles with either single buttering method (the adhesive is buttered on the substrate) or double buttering method (for tile sizes > 33x33 cm, adhesive should be buttered onto the tile back as well). The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact.

- Double buttering method provides full contact of the tile on the substrate.
- Glass tiles, natural stones and marbles should be fixed with double buttering method.



The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back.

- Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.
- Lift an occasional tile after fixing to verify that the required contact is being achieved.
- The irregularities, pores or roughness on tile back should be completely filled with adhesive when applied with double buttering method.



Precautions:

- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesives should be used.

The tiles should be fixed within the specified open time of the adhesive.

- The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Fixing after wetting the dried adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied.



- Wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired.
- The adhesive has a specified pot life. Dried adhesive should be disposed and new adhesive should be mixed. Do not add more water into the dried adhesive to provide a consistent paste, it is not applicable.
- Grouting must be done after the adhesive fully completes its initial set. Setting time may change due to application conditions, adhesive characteristics and application area. During setting phase, the covering should be protected from loadings, direct sunlight, frost and rain.
- Application on hot surfaces and during sunny and/or windy weather is not recommended. The substrate should have no risk of freezing.



JOINT FILLER APPLICATION

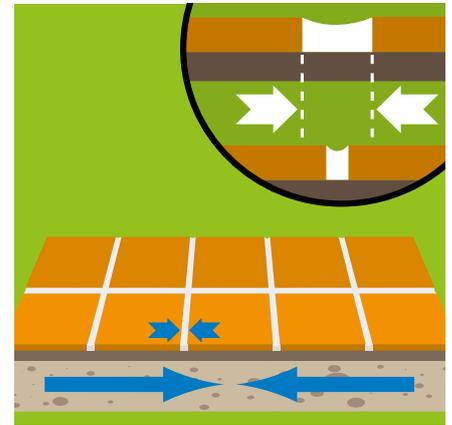


FUNCTIONS OF A TILE GROUT

The joint filler used in filling tile joints has mainly two distinct functions:

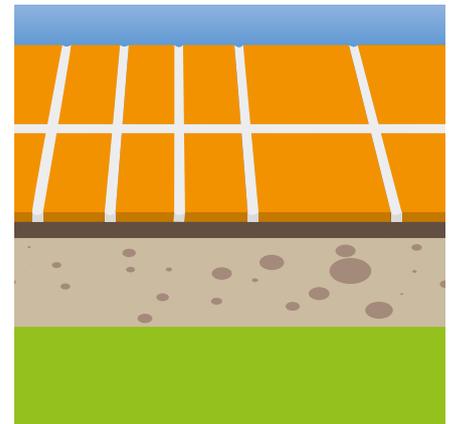
Physical function.

- Protects the tile covering and its base against abrasion, and corrosive effects of water and liquid chemicals.
- It compensates the movements and absorbs the stress formed on the covering by thermal and mechanical effects.



Decorative function.

- Varying wideness of the joint allows flexibility in covering design.
- It yields a unified outlook of the covering by compensating the size variations of tiles.
- Wall and floor coverings with different formatted tiles are combined by joints.
- Colour options for joint fillers provide decorative fertility.



EN 13888 STANDARD

EN 13888 Standard identifies the test and performance criteria to classify the joint fillers used in filling tile joints. According to the standard, the joint fillers are classified by their performances.

Tile grouts are categorized according to their chemistry and these categories are abbreviated by letters of the alphabet:

CG Cement Based

- Cement based powder joint filler is mixed with a specific amount of water or some other liquid to use.

RG Reactive Resin Based

- Two or more components of the joint filler (including one component as the resin and one another as the hardener) are mixed in specific amounts to use.

The joint filler in one of the chemistry categories is classified into one of the two performance classes according to its performance level in defined tests:

Class 1

- (Normal) **Standard Performance** joint filler. It validates the minimum required performance level in tests.
- It is suitable for standard applications requiring no special performance.

Class 2

- (Improved) **High Performance** joint filler. It validates higher performance levels in comparison to standard performance adhesives.
- It is suitable for applications with types of works subject to coercive environmental forces requiring special performance.

Primary Technical Performance Requirements

Abrasion resistance	≤ 2000 mm ³
Bending strength	≥ 3,5 N/mm ²
Bending strength (freeze-thaw cycle)	≥ 3,5 N/mm ²
Compressive strength	≥ 15 N/mm ²
Compressive strength (freeze-thaw cycle)	≥ 15 N/mm ²
Shrinkage	≤ 2 mm/m
Water absorption (after 30 minutes)	≤ 5 g
Water absorption (after 240 minutes)	≤ 10 g

CG1

Additional Technical Performance Requirements (in addition to CG1)

Extra-high abrasion resistance	≤ 1000 mm ³
Water absorption (after 30 minutes)	≤ 2 g
Water absorption (after 240 minutes)	≤ 5 g

CG2

Technical Performance Requirements

Abrasion resistance	≤ 250 mm ³
Bending strength	≥ 30 N/mm ²
Compressive strength	≥ 45 N/mm ²
Shrinkage	≤ 1,5 mm/m
Water absorption (after 240 minutes)	≤ 0,1 g

RG



JOINT FILLER APPLICATION

REQUIRED - ESSENTIAL FEATURES FOR A TILE GROUT

Below are the features of a joint filler when it is wet, during application and before it hardens:

- **Workability** (easy application and good spreading performance of the joint filler).
- **Water retention capacity** (for sufficient hydration and bonding performance of the cement based joint filler even on high porosity surfaces).
- **Reduced flow** (non-flowing of the joint filler ensuring fast and efficient wall tiling).
- **Wetness capability** (on the substrate and tile back).
- **Sufficient workability time.**

Below are the features of a joint filler after it hardens and completes its curing:

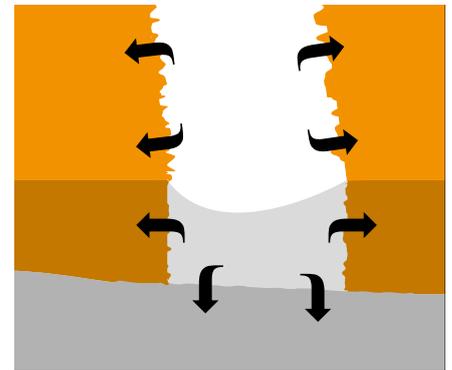
- **High bonding performance** (on the tile and the substrate).
- **High deformability** (the joint filler should absorb the stresses and compensate the movements forming between the substrate and the tiling layer in fluctuating thermal conditions).
- **Reduced water absorption** (water repellent feature and better imperviousness) (reduced coloring and efflorescence risk, improved color stability provided by hydrophobic dispersion additives).
- **Improved abrasion resistance** (robustness) (high resistance to physical effects and chemicals).

FACTORS AFFECTING TILE GROUT SELECTION

Surface absorptivity of the tile (water permeability):

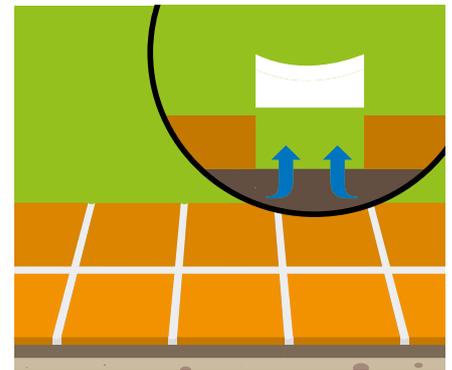
When the joint filler contacts with tile sides, it engages physically with small irregularities, pores (absorbed by the tile and substrate with capillary forces) etc. in the surface and forms a strong bond when joint filler sets in those pores, resulting in a mechanical keying action to bond.

- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).



When grouting is done with a low adhering performance joint filler into the joints of impervious tiles, the adherence is much weaker resulting in grouts de-bonding from the its base.

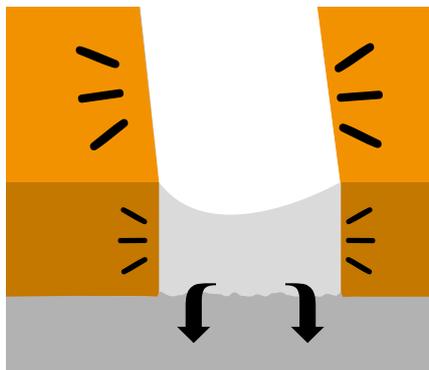
- When the covering materials has very low or no absorptivity (such as porcelain or glass), then the standard type joint fillers cannot be absorbed into the material and there is no allowance for a mechanical bonding.



- Impervious tiles may have no irregularities or pores where the joint filler would engage.

- Bonding of the joint filler onto impervious surfaces (of the substrate or tile sides) with a sufficient adherence performance is yielded by chemical additives named polymers (organic resins). Polymers provide the physical bonding of the adhesive.

- To provide improved bonding, tile may be produced with irregularities, pores or roughness on the sides.



- According to definitions above, standard performance tile grout is suitable with tiles with water absorption rate $\geq 3\%$ (wall and floor tiles, marble and etc.), whereas high performance tile grout is required for tiles with water absorption rate $< 3\%$ (glass mosaics, porcelain tiles and etc.). However; if coercive environment forces are subjected after tiling, high performance tile grout should be chosen.

- Reactive resin based tile grout bond with much higher strength into the joint and provide very high technical performance in comparison to cement based tile grout.

Flexible substrates:

Wooden floors and panels, gypsum boards may move or flex when exposed to loading (stepped on or pressed), which will cause instability of the covering leading to disbonding and cracking problems. Before tiling application, the loose boards or parts should be replaced, panels laid on joists or battens should be reinforced and fixed to stabilize.

- When tiling onto flexible substrates, covering system and the substrate should deflect in conformity according to the load applied. The tile grout should be flexible to absorb the amount of movement or in mismatch joints will either delaminate or crack.

- High performance tile grouts have flexible character.

Covering material size and weight:

Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles.

- When tiling middle and large sized (>33x33 cm) tiles, flexible tile grouts with high performance should be selected to maintain required flexibility to absorb the tension and movement between the tiles.

In vertical tiling applications, tile weight per m² is critical.

- Heavy tiles may sag by gravity effect and squeeze the underlying tile. In a very rigid covering system, the underlying tile may not resist the sagging load of the upper tile and delaminate from the substrate.

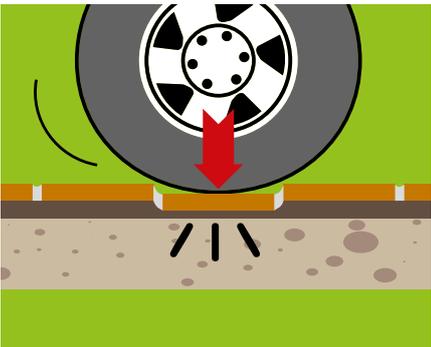
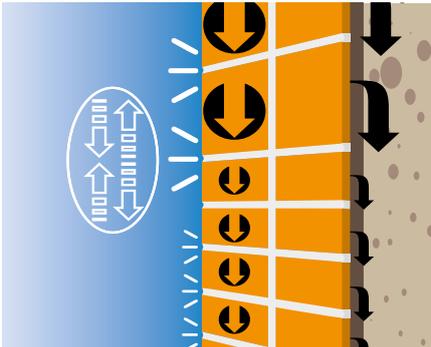
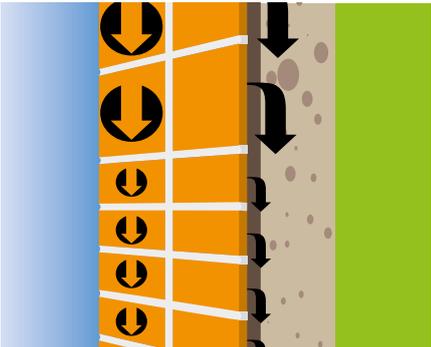
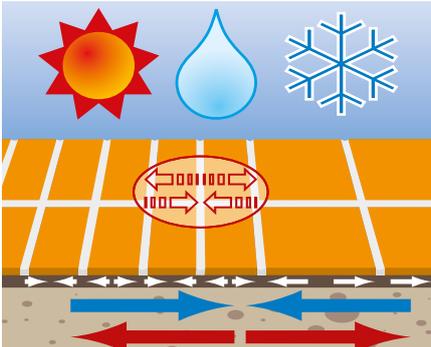
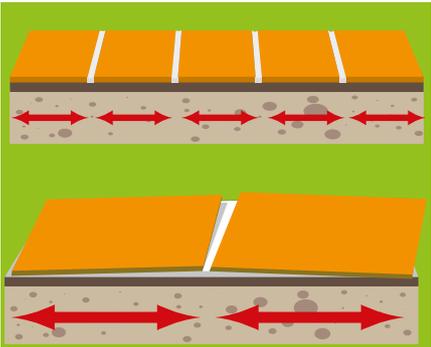
- Large tiles have less joint area to absorb the movements occurring on the covering.

Area of use:

For areas exposed to light pedestrian traffic, standard performance tile grouts provide the required technical performance.

- The floors of public places (hospitals, malls, and public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering.

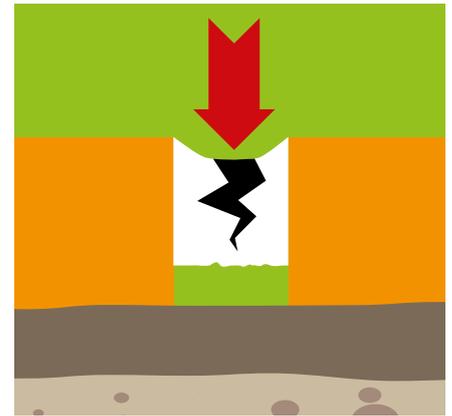
- The tile grout must be high performance class with flexibility to bear the expected loads the area is subject to.



JOINT FILLER APPLICATION

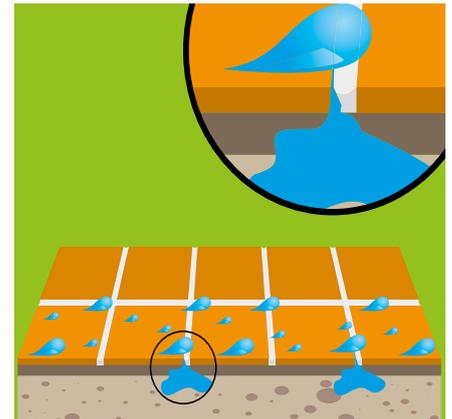
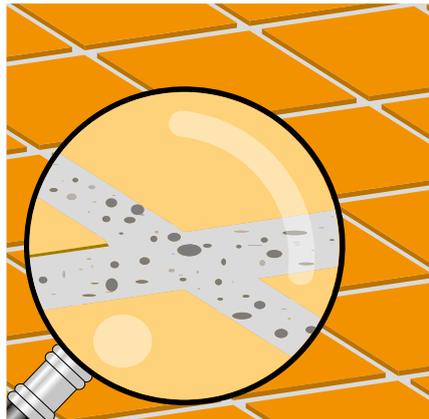
Any area of the tile grout that has no contact on the substrate and has voids under is vulnerable when subjected to a localized load. These fragile points will let cracks.

- For the tile grout to correspond the loading homogenously on all along covering area, full filling of the grout joint is required.



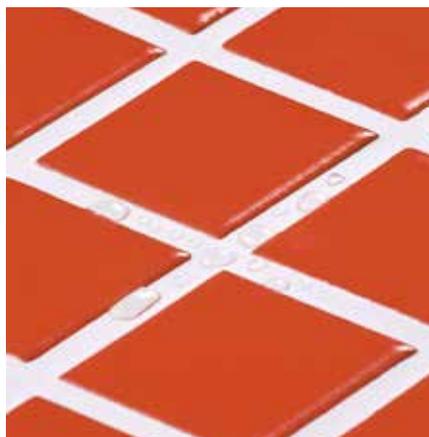
In areas such as auto services, food factories, laboratories and etc. where the covering is exposed to various chemicals, epoxy resin based grouts providing very high resistance to chemicals should be used for tile grouting.

- If the tile grout do not resist against corrosive effects of the chemicals, it will decompose leaving the coverings base and the substrate open to corrosive effects.



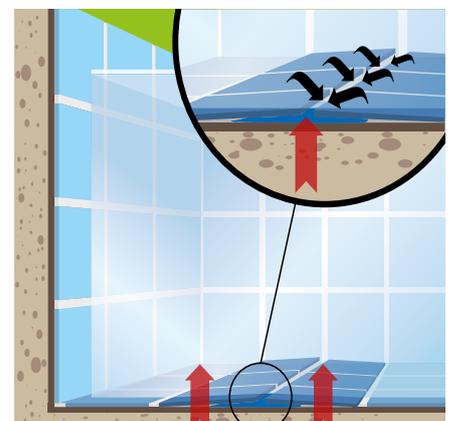
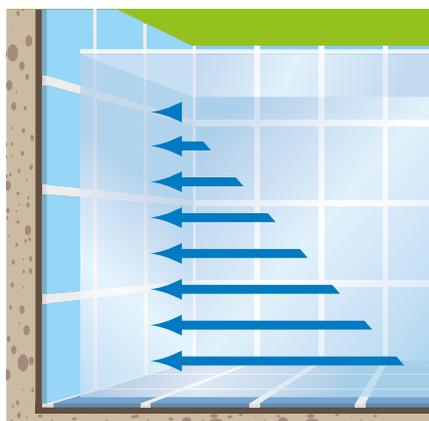
In case of outdoor pool, terrace, balcony and facade tiling; all substrates and covering systems will shrink and expand naturally due to temperature fluctuations and humidity. Particularly, when seasonal temperature changes are severe, shrinkage and expansion will exacerbate. Tile grouts in such applications will also be exposed to the vulnerable and corrosive effects of rain, snow, freeze, UV and etc.

- The tile grout should be flexible type to absorb the amount of movements with a high performance bonding ability. Additionally, the tile grout should have water repellent property in order to resist the corrosive effects of water. Otherwise, water seeps through the grout cracks under the covering and may freeze in cold weathers. This will cause volume expansion and therefore tension under the covering. Tension may cause delaminating, cracking or deformations of the covering.



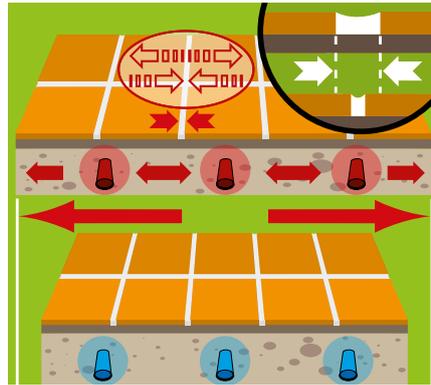
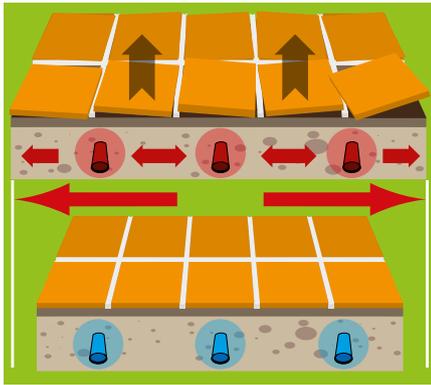
In pools and water tanks movements occur due to water pressure varying with weight water.

- Once the pool or water tank is filled, there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool. When the pool is emptied inertial forces will be formed on the pool walls and base. These movements will cause tension in the covering system. The bonding strength of the tile grout must not be affected by the movements caused by opposite forces. If tile grouts crack or blow away from their base under tension, the pool shell will be exposed to the corrosive effects of water.



- Tile grouts particularly developed for pool tiling with high performance, flexibility, water repellency and resistance to pool cleaning chemicals should be selected in pool tiling.

- Epoxy resin based joint fillers with high resistance to corrosive chemicals and abrasion should be selected particularly in applications of olympic pools (exposed to high water pressure and frequent use of corrosive pool cleaning materials) and pickle production pools (exposed to constant acidic liquid contact) and thermal pools (exposed to very strong thermal effects).



Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed between the tiles and the substrate. In such a case, the tile grout should absorb the tension and the movements occurring between the tiles. Otherwise, the tiles may delaminate or blow away from their base. Same rule applies for the substrates on heat transmitting systems and insulation applications.

- In these typical applications, the tile grout should be high performance class providing flexibility enough to work compatible to the movements occurring in the substrate.

APPLICATION (CG CLASS – SINGLE COMPONENT / CEMENT BASED)

Surface preparation:

- Grouting should start after the adhesive has set and dried. Instructions of the adhesive producer should be followed. Joint filler's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the joint filler bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (ie, gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

Mixing of the joint filler:



CG class - cement based powder joint filler is mixed with a specific amount of water to use.

- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- The paste should rest for 5 minutes prior to application and should be applied after re-mixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).
- The components are mixed (gradually add powder to the clean water) to a smooth and homogenous paste in a bin.

- For a smooth and homogenous paste, it is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

Application:



Fill the joint filler in the joints completely with a suitable squeegee or a rubber float leaving no voids.

- Remove the excess joint filler immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens.
- If moved parallel to the tiles the joint filler within the joints may be removed causing a deformed grout surface.
- Work on a small area at a time. Be particular about tiles with soft surface which can be scratched during grouting.

- Always follow the same direction across tiles when applying the joint filler.

JOINT FILLER APPLICATION

Cleaning:

Time for cleaning the excess joint filler from tile surface is when the grout has started to dry.

- Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates), and may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.

- Exact time may be determined by touching the joint filler. When the material slightly gets on the finger, cleaning phase should start immediately.

- To clean the tiles use a dampened cleaning pad or sponge. Use only clean and non-chalky water to dampen the pad or sponge.

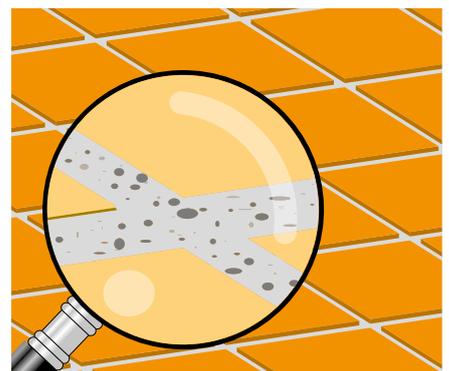
- Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved.

- Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.

- In case of cleaning earlier or later, yet wet or hardened grout residues may deform the grouts and cause scratches and colour variations on grouts surface.

Final cleaning to remove the joint filler residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth.

- The residues on tiles are cleaned gently with the cloth in circular motion. Continue wiping the tiles until all residues are moved.





- If any residues remain after final cleaning, wait for 10 days and treat the tiles with acidic content tile cleaning material to loosen and remove these residues.



Precautions:

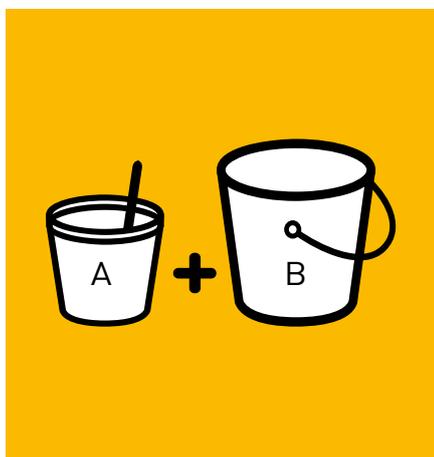
- Grouted surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.
- In hot, dry and windy conditions, wetting the surface of the grouts a few hours after the application will yield a better final product performance.
- To improve the technical performance of the joint filler (improved resistance and flexibility and water repellency features), it is recommended to add performance improving additive into the mixing water.

APPLICATION (RG CLASS-TWO COMPONENTS/EPOXY RESIN BASED)

Surface preparation.

- Grouting should start after the adhesive has set and dried. Instructions of the adhesive producer should be followed.
- The joints and tile surface must be clean in order to ensure the joint filler bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- The surfaces exposed to direct sunlight and have a surface temperature above +30 °C must be cooled by damping.

Mixing of the joint filler:



RG class – epoxy resin based joint filler is prepared by mixing of the two components (Component A – epoxy resin and Component B – hardener) with a specific mixing rate to use.

- Do not add any water or other additives into the mixture than it is specified on the technical legends on the product packaging or technical data sheets, and conform to the mixing rate of the components.

- Do not add more or less of the components than specified to get a fluid form or extend pot life (working time). Do not add water.

- Gradually add the entire hardener component (component B) to the epoxy resin component (component A) in a bin, and mix to a smooth and homogenous paste with a uniform colour for at least 3 minutes.

- For a smooth and homogenous paste, it is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.

JOINT FILLER APPLICATION

Application:

Fill the joint filler in the joints completely and thoroughly with a hard rubber float or steel trowel leaving no voids. Work on a small area at a time.

- Epoxy joint filler should not be spread on tiles as cement-based products. Once the epoxy hardens, it will be very difficult to remove the material residues on tiles. Besides, this application method will provide savings in quantity and easiness in cleaning.

- Remove the excess joint filler immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the joint filler within the joints may be dragged from the joints causing a deformed grout surface. Always follow the same direction across tiles when applying the joint filler. If the joints are wide, particular care is required.



Cleaning:

Time for cleaning the excess joint filler from tile surface is when the grout has started to dry. Duration may vary due to ambient temperature (longer in lower temperatures, shorter at higher temperatures).

- Exact time to start cleaning may be determined by touching the joint filler. When the material slightly gets on the finger, cleaning phase should start immediately.



- Clean water should be used for cleaning process.

- Use cleaning pads, particularly designed for epoxy grouting works. As the first phase of cleaning process, select a thick textured pad for rough cleaning. Move the pad in circular motion across the tiles in order not to cause any deformations.



- In the second phase of cleaning process, select a thin textured pad for smooth cleaning and apply as described above.

- Final cleaning and rinsing should be done with a damp sponge. Use only clean and non-chalky water to dampen the pads and sponge.



- Move the sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved.

- If any stickiness is felt when touched on the tile surface, repeat final cleaning.



Precautions.

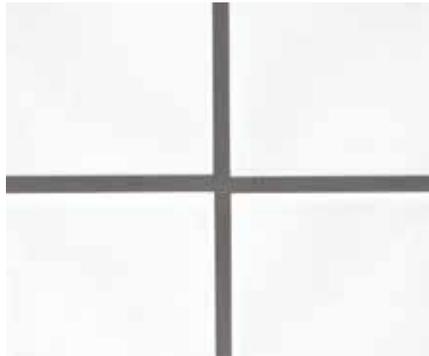
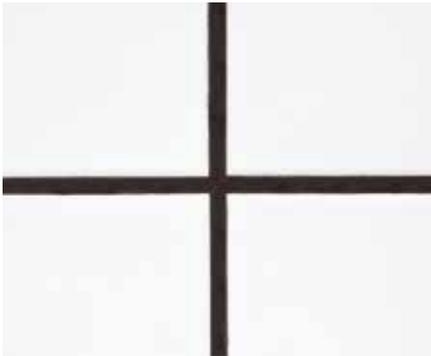
- Grouted surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.

PRECAUTIONS



In fixing transparent and light colored tiles and natural stones, particularly when they are highly porous, the covering material may absorb the joint filler. This causes the formation of stains and colourations visible on the covering surface.

- In fixing porous tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and colourations.



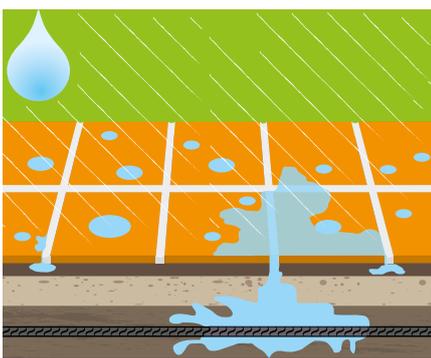
The joint filler may be perceived with a different tone of its colour when applied into the joints of tiles with different colour and varying porosity.

- The joint filler is perceived with a darker and intense tone of its colour when applied into the joints of a lighter coloured and higher porosity covering.



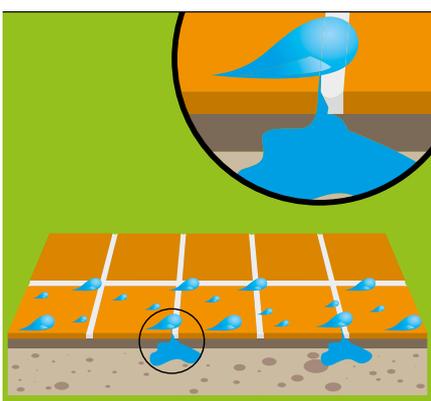
Joint fillers contain colour pigments which activate with mixing.

- For powder (cement based) joint fillers; the colour of the powder form may be in very light colours than the expected final colour.



Cementitious joint fillers, particularly high performance class products, have improved water repellency but not absolutely impermeable.

- Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first.



Before tiling applications in industrial floors, auto services, food factories and etc. the acid and alkali content of the conditions the covering will be exposed to should be determined thoroughly. The chemicals contacting with tile grouts may have hazardous effect, and a pre-testing of grout resistant should be held. Particularly, in tiling application in milk and dairy product factories, it is recommended to consult joint filler producer for technical advice.

- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and colour variation. Cleaning of tile grouts should be done with appropriate materials.

JOINT FILLER APPLICATION

When components of the joint filler does not mix homogenously and with specified mixing rates, the final grout performance will fail, and therefore, the grout will easily be removed from its joint.

- In the case discussed above, the tile grout will not have the expected colour performance while forming discolouration and colour variation along grouts.



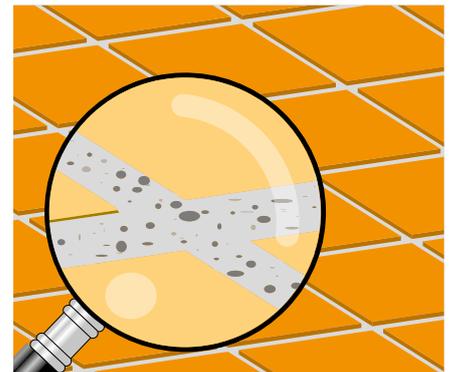
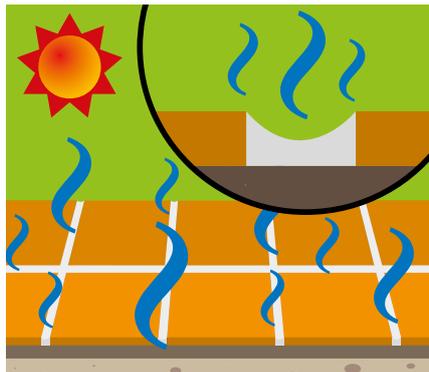
Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material.

- Expansion joints should be insulated by using proper profiles or mastics. CG or RG class joint fillers are not appropriate for expansion joints.



If cement based joint filler is mixed with more mixing water than it is specified, sudden and severe drying of the mixing water is possible, particularly in hot and dry conditions.

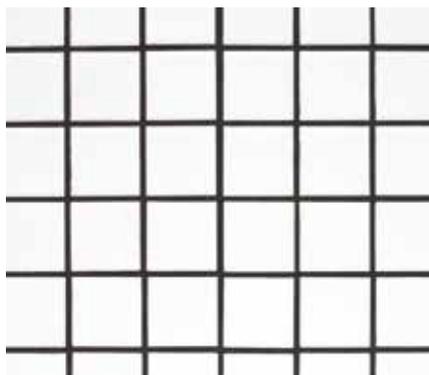
- Discrete holes and grains will form on the grout surfaces exposed to the drying effect described above.



Efflorescence effect:

In case of a false grouting application of the cement based joint filler, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours will form.

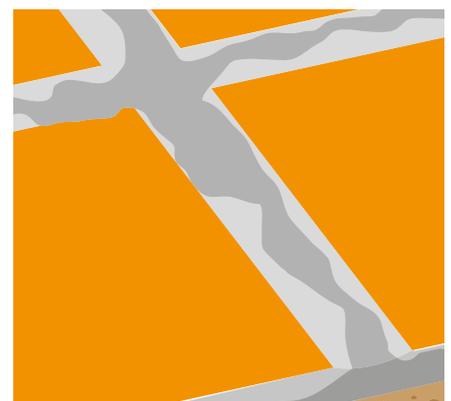
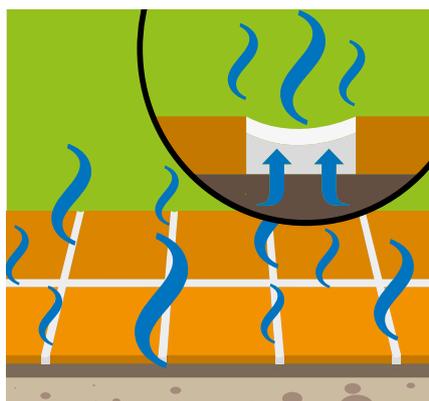
- As the excessive mixing water of the grout or adhesive will dry through the grout, the water will carry dissolved salts (as by product of the hydration process of cement and water) and cause a white deposit on the surface of the grout, known as efflorescence (whitening)



The efflorescence effect may exacerbate with increased amount of the drying water.

- Efflorescence can sometimes happen anyway but chances are increased if more water is dried through the grout. If the joints are grouted before the drying of the adhesive is complete, water will be trapped. Trapped water will increase drying water amount.

- Wet joint filler mixed with more water than specified, using a wet sponge for cleaning in grouting application or exposing of the grout surface to water very soon after application, all these conditions will increase the amount of water dried. Thus, possibly the efflorescence effect will be exacerbated.







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WATERPROOFING and TILING IN WET AREAS



1 CONCRETE-SCREED

- | | | | | | | |
|---|---|--|---|---|---|--|
|  |  |  |  |  | | |
| 2 | 3 | 4 | 5 | 6 | 7 | |
| CERMIPLIM
(Synthetic resin based primer) | CERMIMORTAR 3-20
(Surface smoothing and repairing mortar) | CERMIPROOF SF
(Two component, semi-elastic, cement-based waterproofing material) | 1st Layer | 2nd Layer | CERMITAPE TPE
(High performance waterproofing tape) | CERMIGRES
(High performance, thixotropic, porcelain tile adhesive) |
|  | | 8 | CERMIJOINT 0-3 FLEX
(Flexible, fine grained joint filler)
or
CERMIJOINT 3-10 FLEX
(Flexible joint filler) |  | 9 | CERMISIL NS
(Neutral antibacterial silicone sealant) |

TILING ON FLOORS (EXPOSED TO HEAVY FOOT TRAFFIC)



1 SCREED



2

CERMI-FILM
(Synthetic resin based primer)



3

CERMIPLUS XL
(High flexible
porcelain tile adhesive)



4

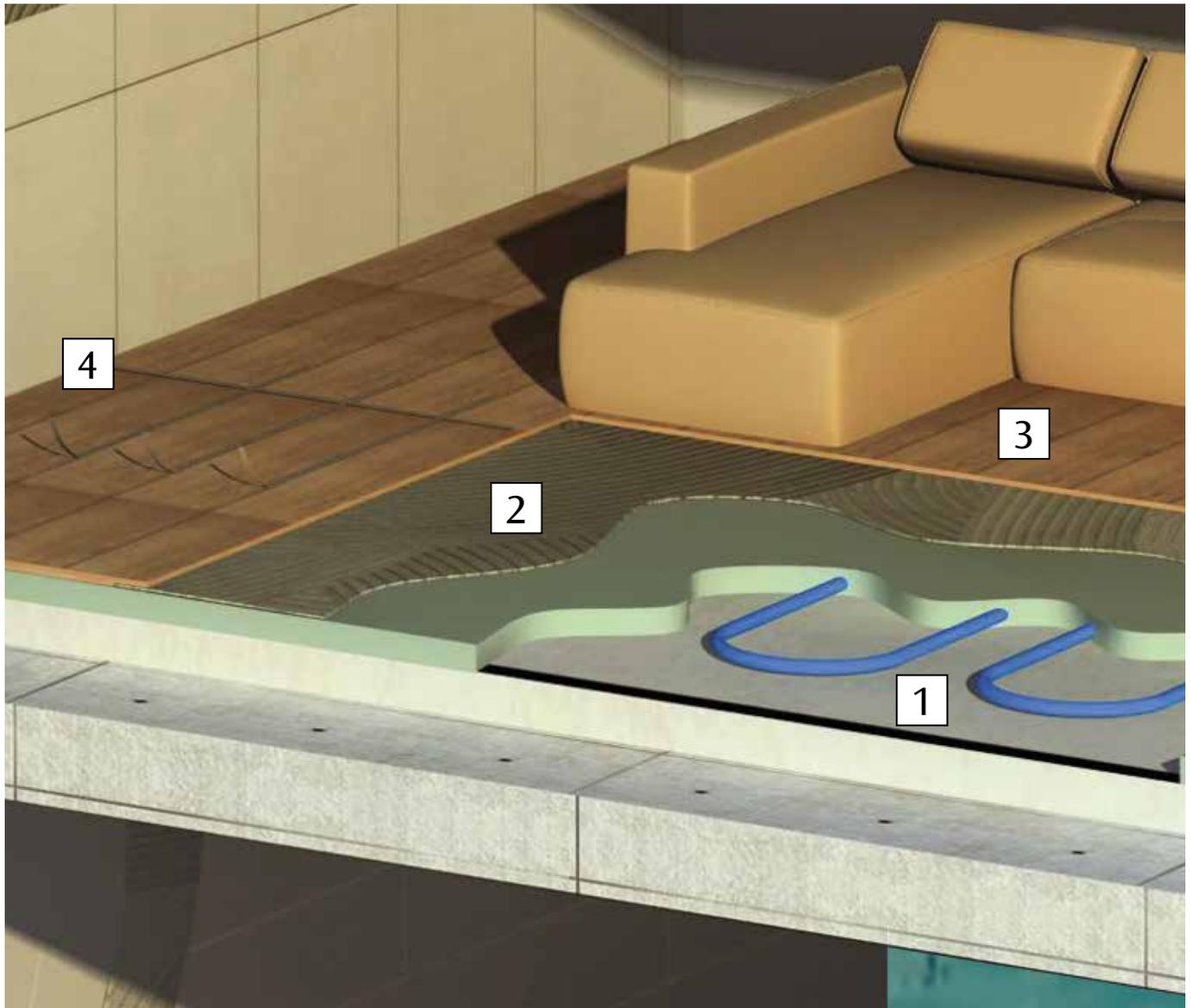
CERMIJOINT 0-3 FLEX
(Flexible, fine grained joint filler)
or
CERMIJOINT 3-10 FLEX
(Flexible joint filler)



5

CERMITAPE FPO
(High performance
joint sealing tape)

TILING ON FLOOR HEATING SYSTEM



1

CERMI FLOOR 4-30
(Fiber reinforced, self leveling screed)



2

CERMI GRANIT
(Flexible porcelain tile adhesive)



3

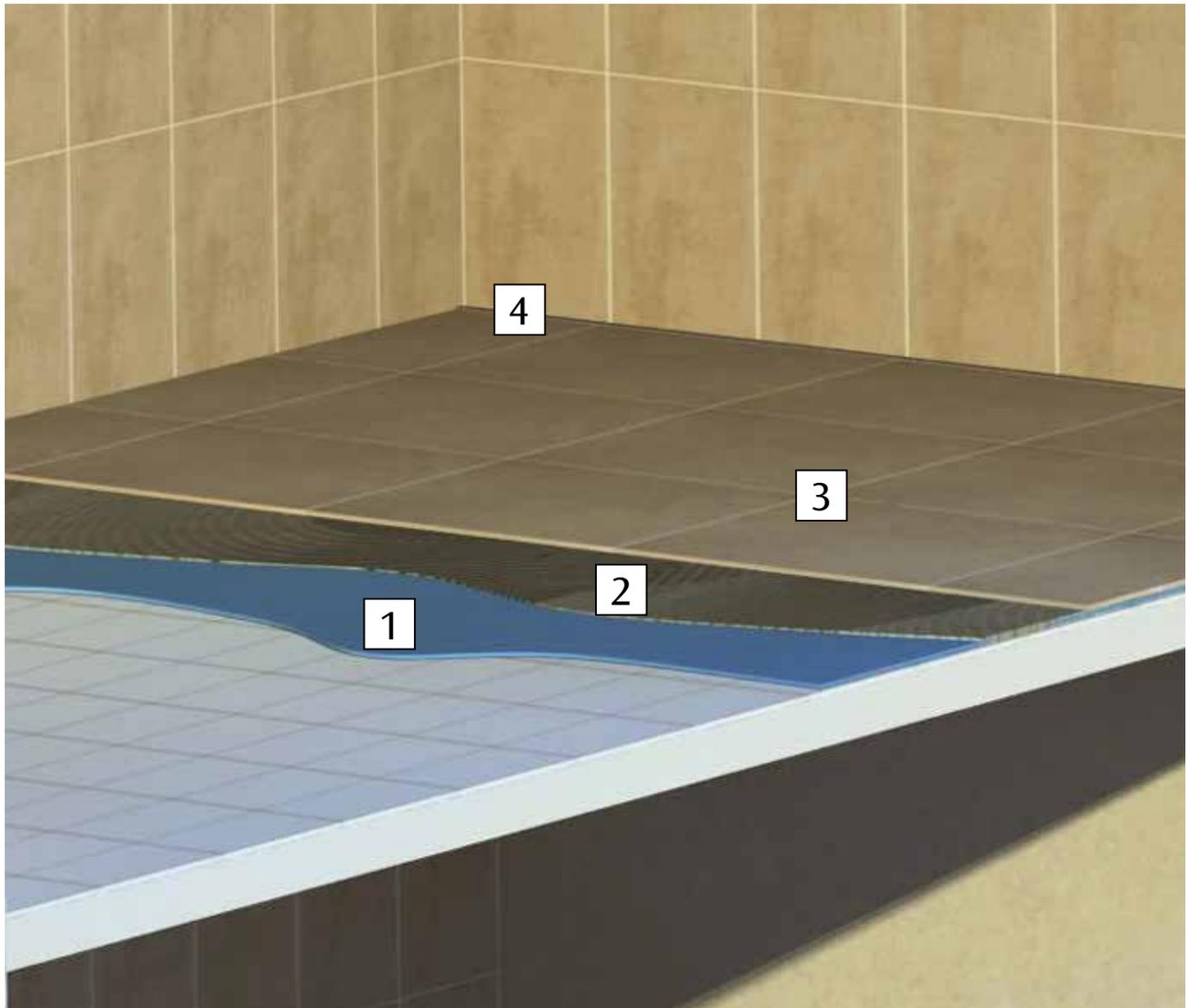
CERMI JOINT 0-3 FLEX
(Flexible, fine grained joint filler)
or
CERMI JOINT 3-10 FLEX
(Flexible joint filler)



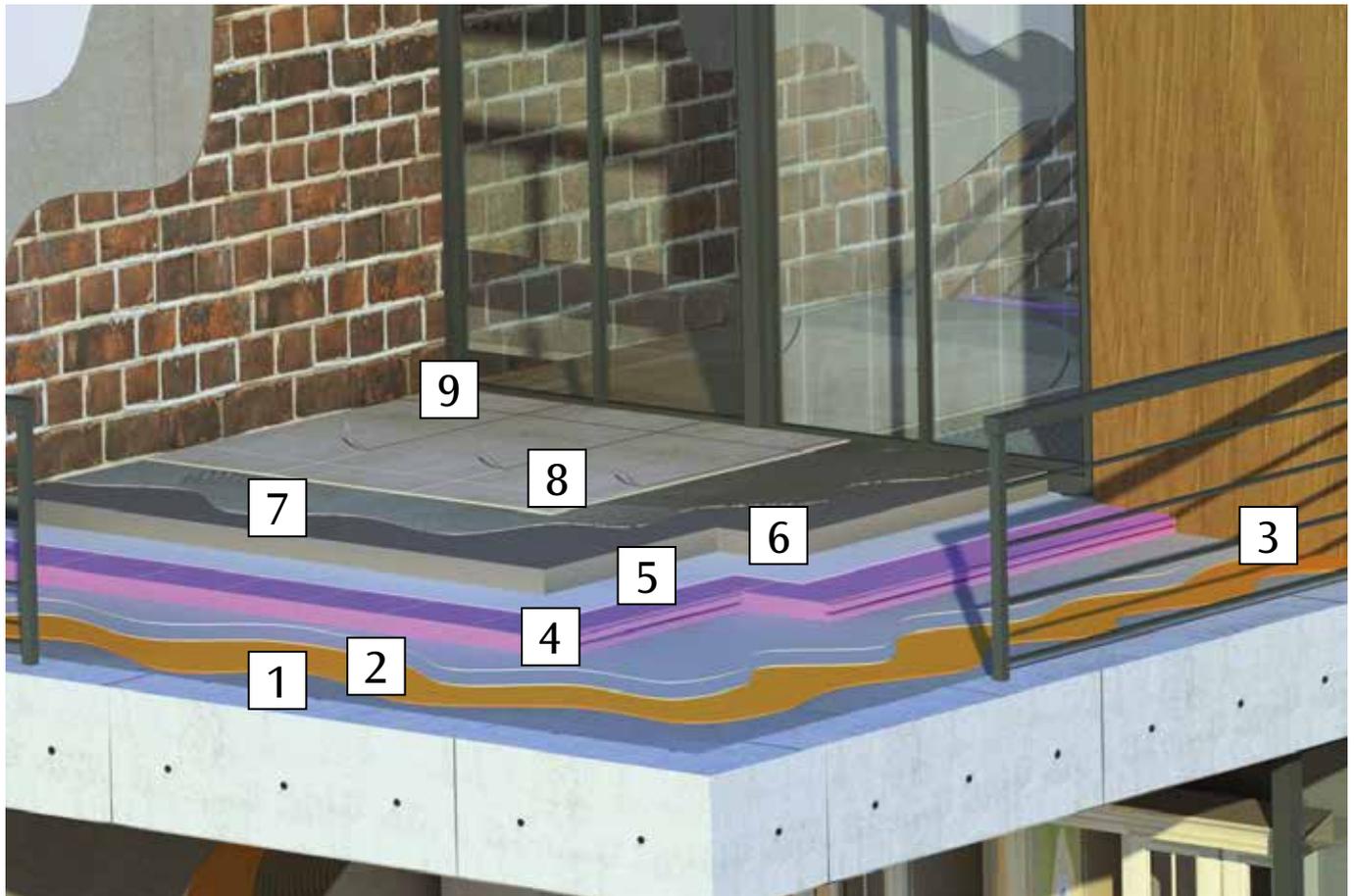
4

CERMI THANE
(Single component polyurethane joint filler sealant)

TILING ON EXISTING TILES



TILING ON BALCONIES



1

CERMI FILM
(Synthetic resin based primer)



2

CERMI PROOF FF
(Two component, cement based, elastic, waterproofing material)

4

XPS - THERMAL INSULATION BOARD

5

PROTECTING FELT

6

SLOPED SCREED



3

CERMI TAPE FPO
(High performance joint sealing tape)



7

CERMI PLUS
(High performance, flexible, porcelain tile and granite tile adhesive)



8

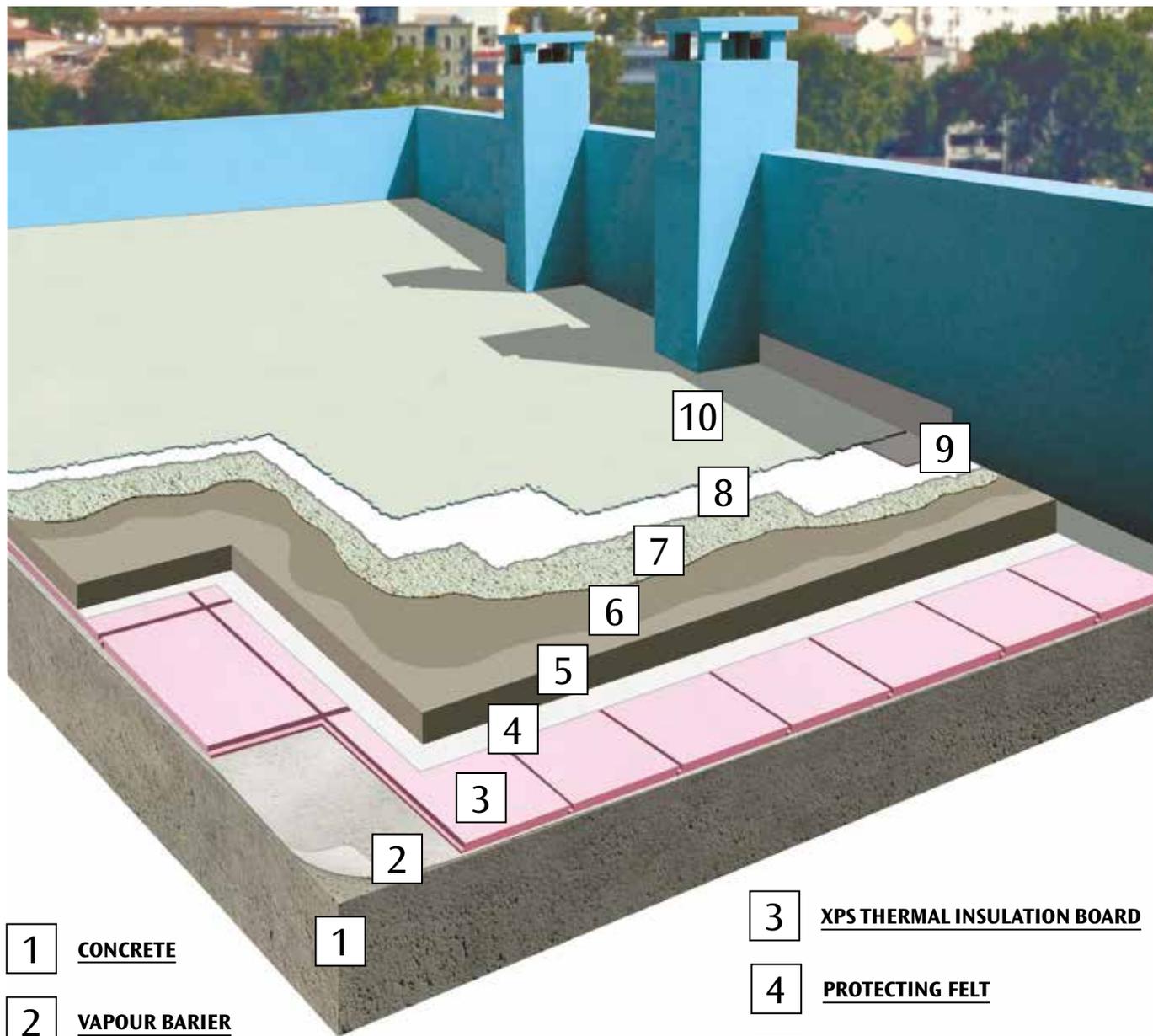
CERMI JOINT 3-10 FLEX
(Flexible joint filler)
or
CERMI JOINT 0-3 FLEX
(Flexible joint filler)



9

CERMI THANE
(Single component polyurethane joint filler sealant)

TERRACE WATERPROOFING - NON TRAFFICABLE ROOF



- 1** CONCRETE
- 2** VAPOUR BARIER

- 3** XPS THERMAL INSULATION BOARD
- 4** PROTECTING FELT
- 5** REINFORCED SLOPED SCREED



- 6**
CERMIPRIME EPR 2C
(Epoxy based primer)



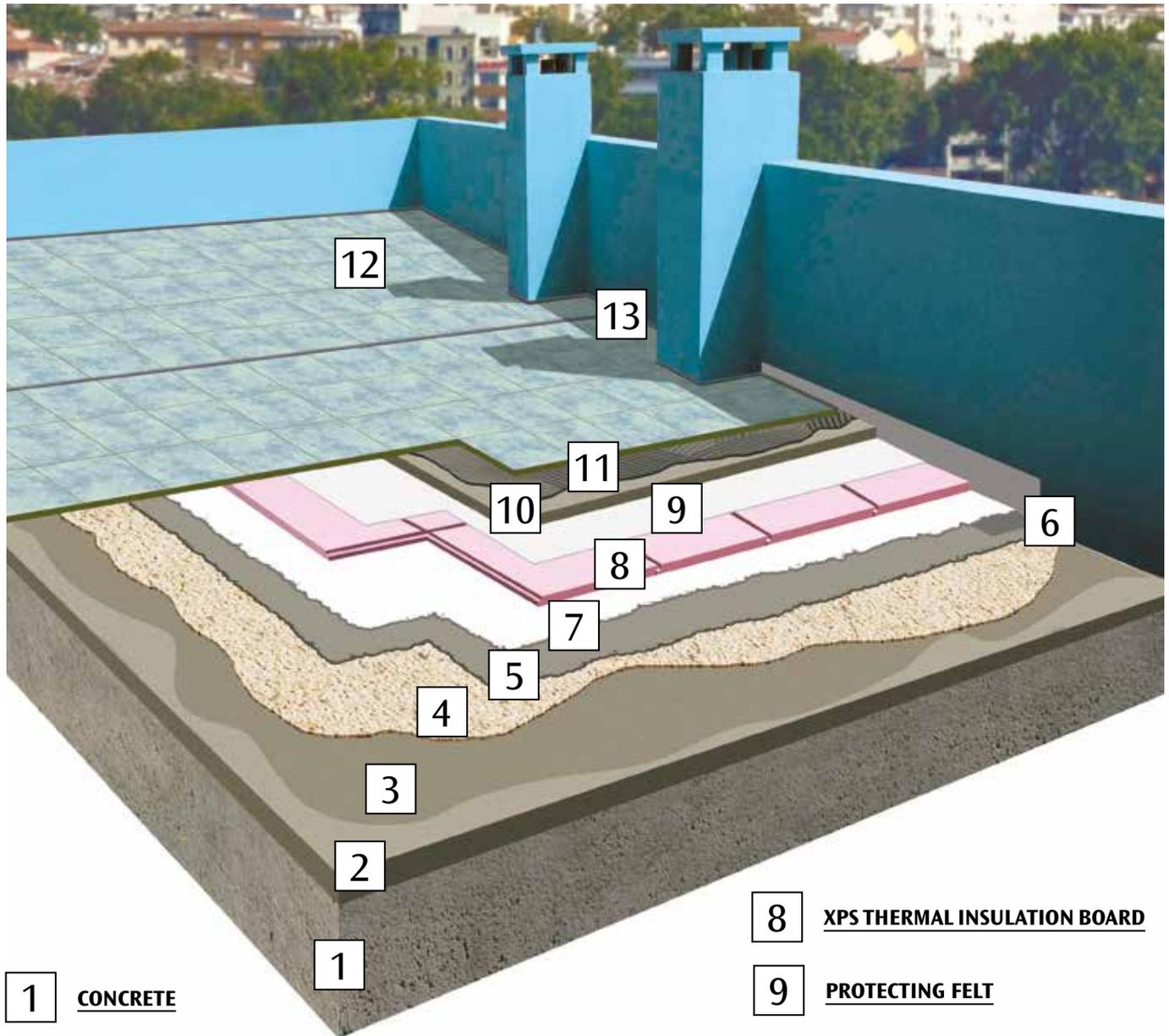
- 8** 1st Layer
- 10** 2nd Layer
- CERMIPROOF PU**
(Polyurethane based waterproofing material)



- 9**
CERMITAPE FPO
(High performance joint sealing tape)
CERMITHANE
(Single component polyurethane joint filler sealant)

- 7**
Quartz sand (0,100-0,300 mm)

TERRACE WATERPROOFING - TRAFFICABLE ROOF



1 CONCRETE

2 REINFORCED SLOPED SCREED

8 XPS THERMAL INSULATION BOARD

9 PROTECTING FELT

10 PROTECTING SCREED



3
CERMIPRIME EPR 2C
(Epoxy based primer)



5 1st Layer **7** 2nd Layer
CERMIPROOF PU 2C
(Polyurethane based, liquid, waterproofing material)



6
CERMITAPE FPO
(High performance joint sealing tape)



11
CERMIPLUS
(Flexible porcelain tile adhesive)

4
Quartz sand - Spread on the layer (0,100-0,300 mm)

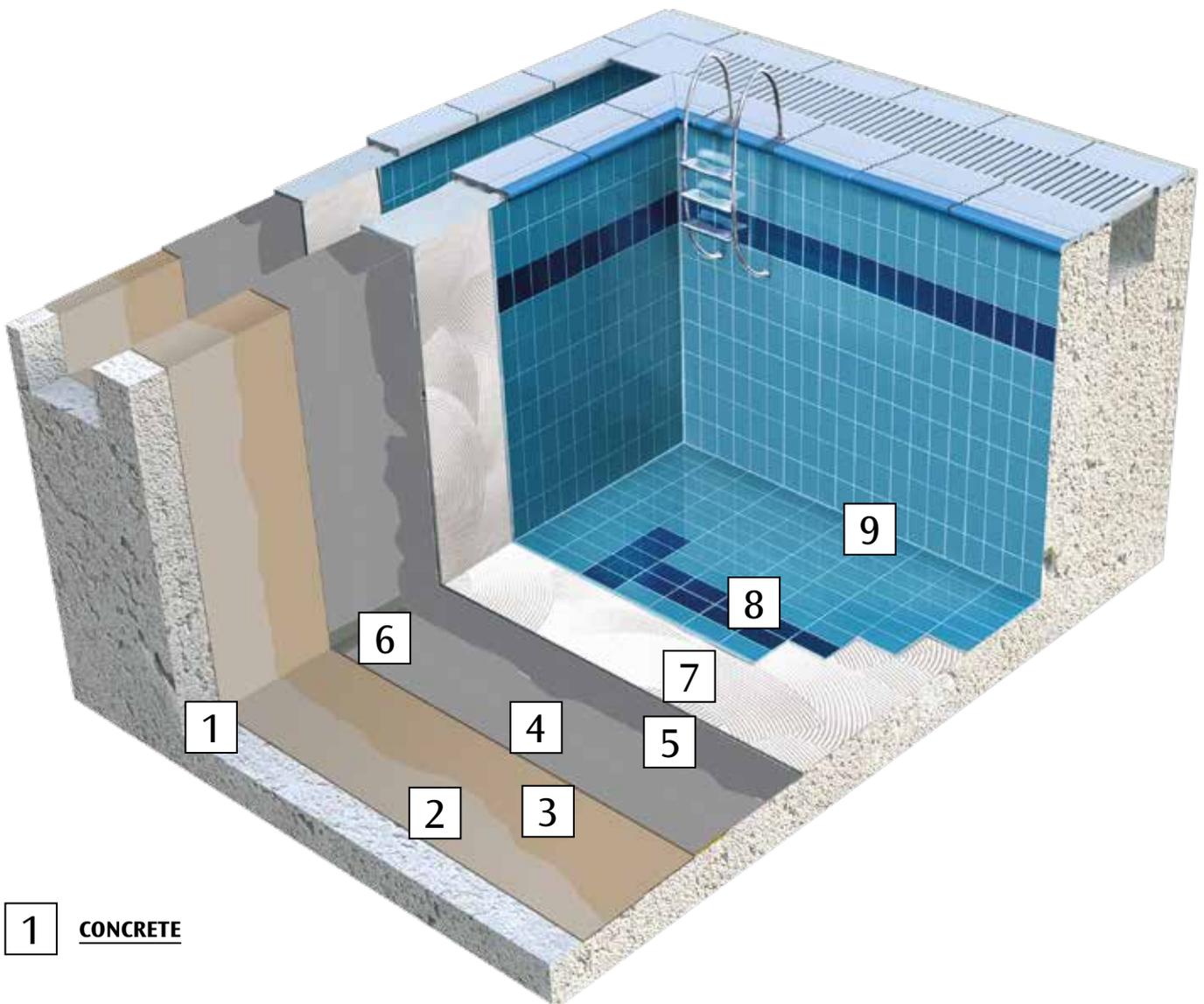


12
CERMIJOINT EPOSOL PRO
(Epoxy resin based joint filler)
or
CERMIJOINT 3-10 FLEX
(Flexible joint filler)



13
CERMITHANE
(Single component polyurethane joint filler sealant)

WATERPROOFING and TILING OF POOLS



1 CONCRETE



2
CERMI MORTAR 3-20
(Surface smoothing and repairing mortar)



3
CERMI FILM
(Synthetic resin based primer)



4 1st Layer **5** 2nd Layer
CERMI PROOF FF PLUS
(Two component, cement based, full elastic, waterproofing material)



6
CERMI TAPE FPO
(High performance joint sealing tape)



7
CERMI POOL
(High performance flexible adhesive)

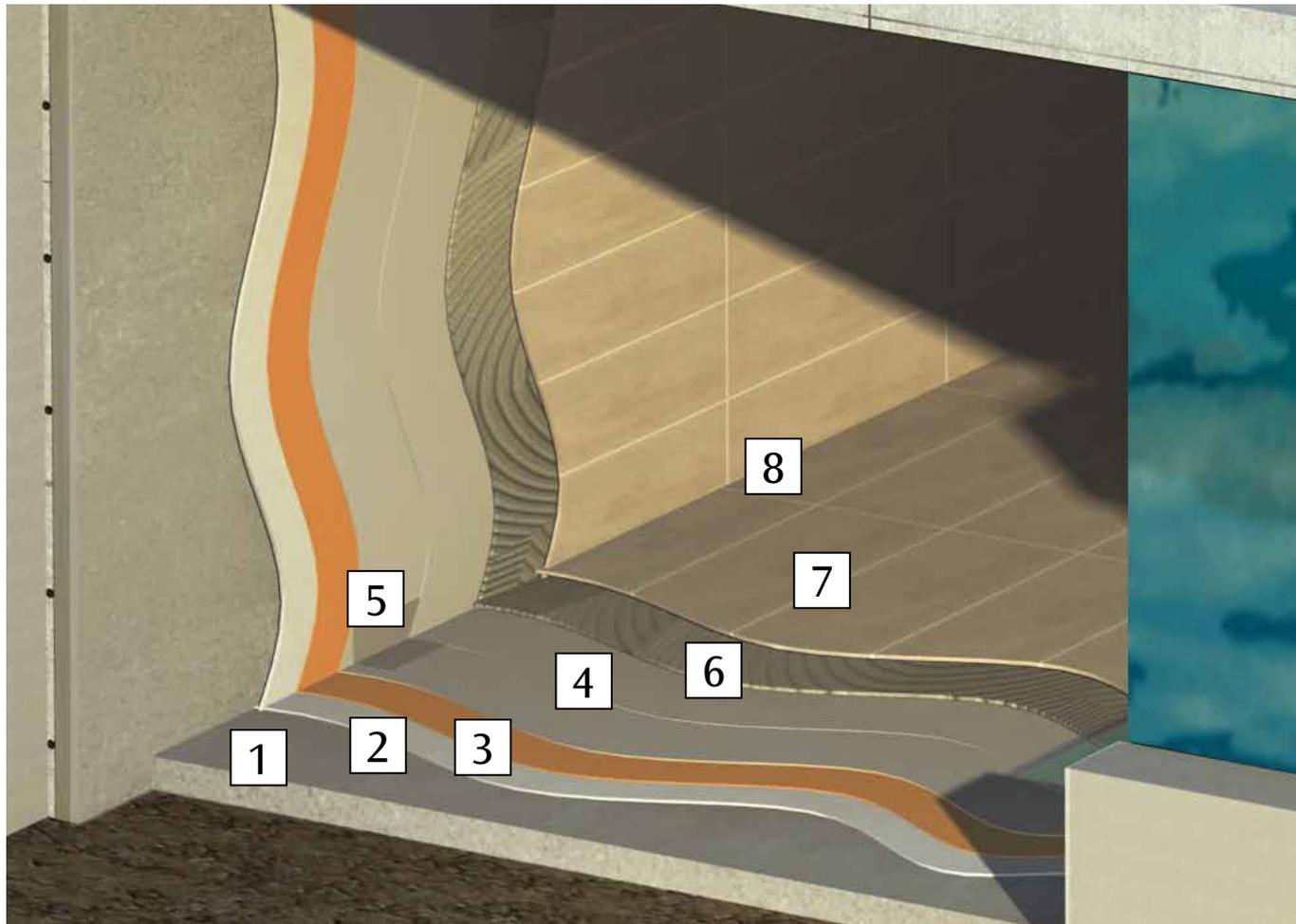


8
CERMI JOINT 2-10 HRC
(Cement based, special, flexible joint filler)
or
CERMI JOINT EPOSOL PRO
(Epoxy resin based joint filler)



9
CERMI THANE
(Single component polyurethane joint filler sealant)

WATERPROOFING and TILING OF WATER-TANKS



1 CONCRETE



2
CERMI MORTAR 3-20
 (Surface smoothing and repairing mortar)



3
CERMI FILM PLUS RAPID
 (Fast drying high performance adhesive primer)



4
CERMI PROOF FF PLUS
 (Two component, cement based, full elastic, waterproofing material)



5
CERMI TAPE FPO
 (High performance joint sealing tape)



6
CERMI POOL
 (High performance flexible adhesive)

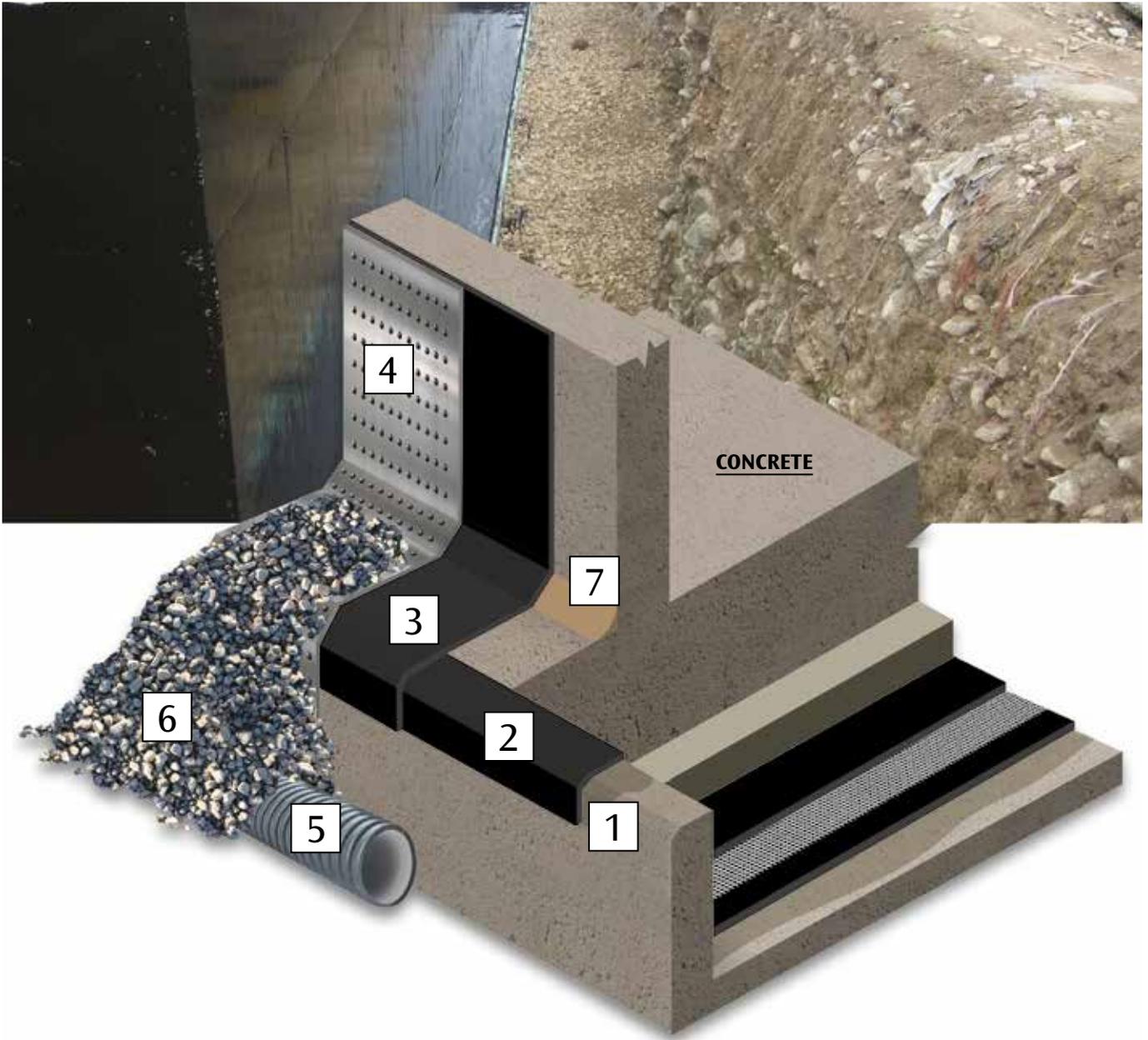


7
CERMI JOINT EPOSOL PRO
 (Epoxy resin based joint filler)
 or
CERMI JOINT 2-10 HRC
 (Cement based, special, flexible joint filler)



8
CERMI THANE MS
 (MS polymer based sealant)

BASEMENT WATERPROOFING



CONCRETE



1

Primer Layer
CERMIPROOF BITUM 2C
(diluted 1:3 or 1:5 of water)



2

1st Layer



3

2nd Layer

CERMIPROOF BITUM 2C
(Polymer modified bitumen
rubber, fiber reinforced,
waterproofing material)
or
CERMIPROOF BITUM PLUS 2C
(Polymer modified bitumen
rubber, waterproofing material)

4

DRAINAGE PANEL

5

DRAINAGE PIPE

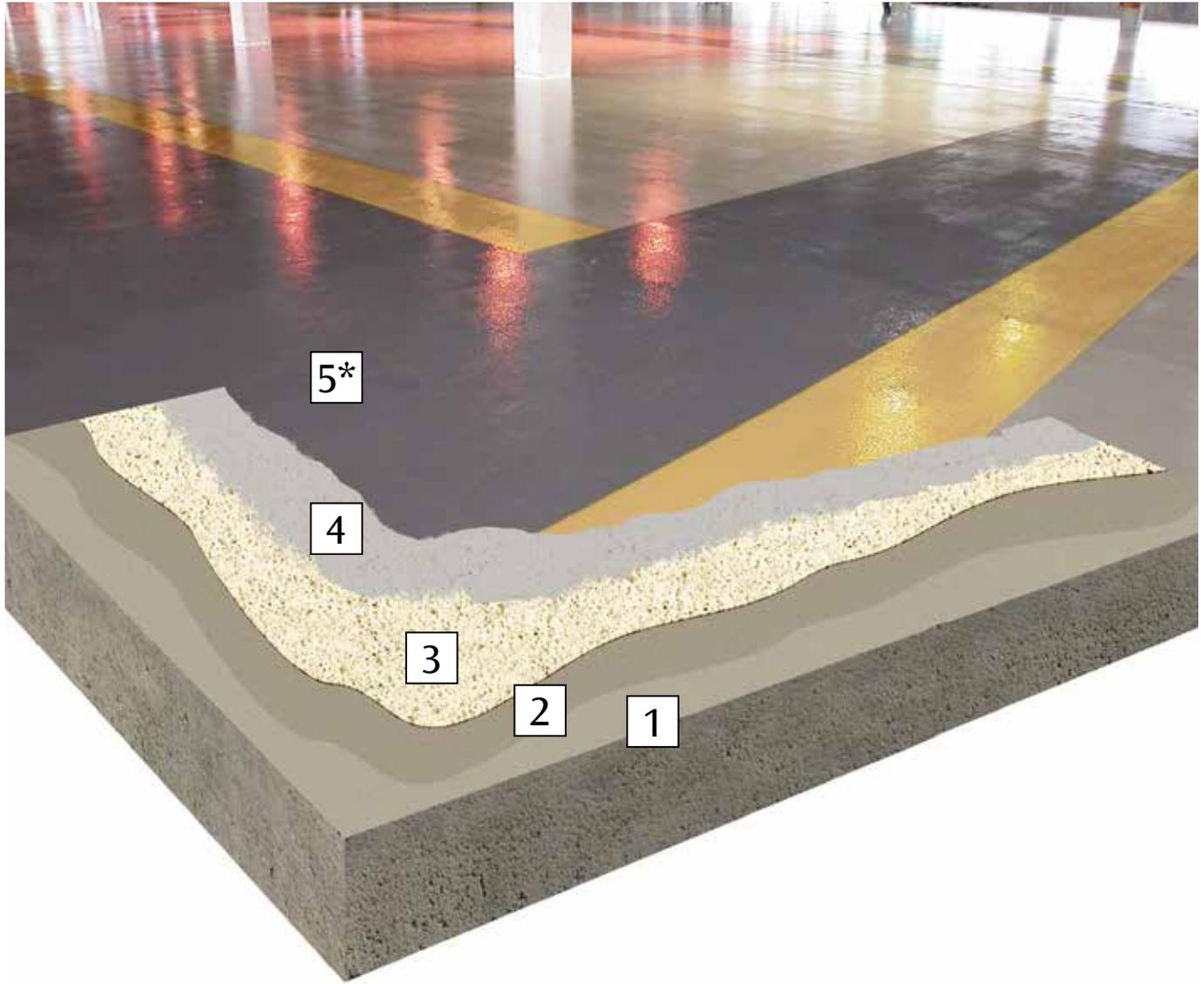
6

STONE FILLER

7

CORNER FILLING

CARPARK FLOORING



1 CONCRETE



2

CERMIPRIME EPR 2C
(Epoxy resin based primer)
+
Quartz sand (0,100-0,300 mm)

3

Quartz sand - Spread on the layer
(0,200-0,500 mm)



4

CERMICOAT EP TIXO 2C
(Epoxy based thixotropic topcoat
for grained surfaces)
or
CERMICOAT EP 2C
(Epoxy based coating material)
(Color: Colored according to the
RAL catalogue)

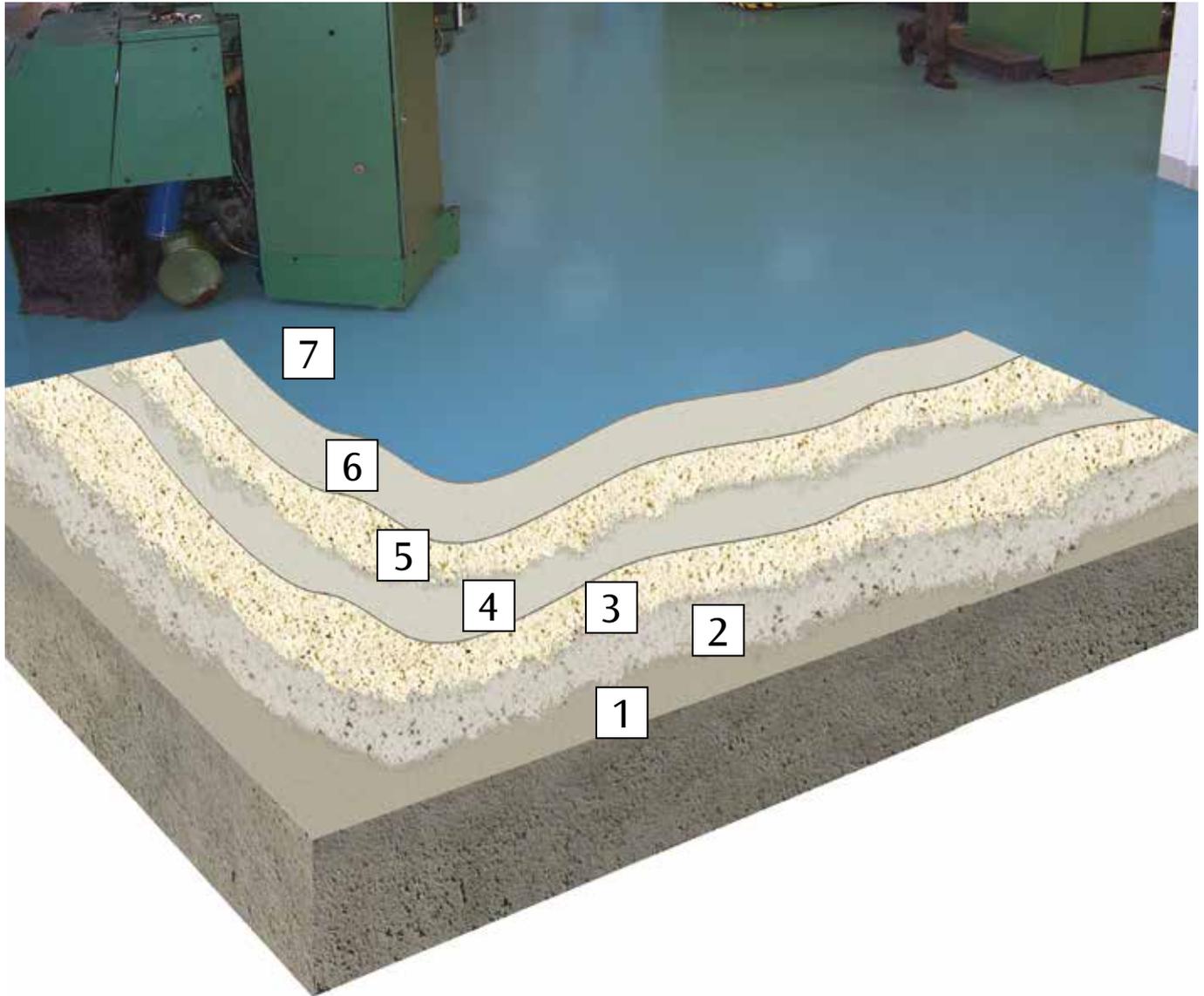


5*

CERMICOAT PU 2CA
(Polyurethane based
coating material)

*Outdoor application

EPOXY SELF LEVELING FLOORING SYSTEM



1 CONCRETE



2

CERMIPRIME EPR 2C
(Epoxy resin based primer)
With filler



4 **6**

CERMIFLOOR EP 2C
(Epoxy based, self levelling material)



7

CERMICOAT PU 2CA
(Polyurethane based
coating materials)

3 **5**

Quartz sand (0,200-0,500 mm)

ELASTIC PU COATING SYSTEM



1 CONCRETE



2

CERMI PRIME EPR 2C
(Epoxy resin based primer)



3

CERMI FLOOR PU 2C
(Polyurethane based, elastic, final coating material)

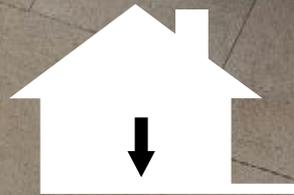
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APPLICATION ICONS



Ideal for
INDOOR FLOORING



Ideal for
OUTDOOR FLOORING



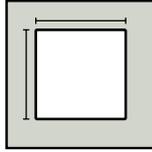
Ideal for
INDOOR WALL
applications



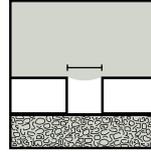
Ideal for
OUTDOOR FACADE
applications



LIMITED TILE DIMENSIONS



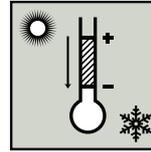
GROUT WIDTH



**CHECK FOR
SURFACE CONTROL**



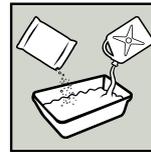
AMBIENT TEMPERATURE



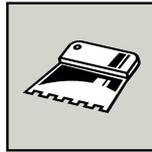
WATER MIXING RATIO



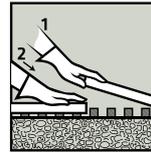
**MIXING RATIO /
2 COMPONENTS PRODUCTS**



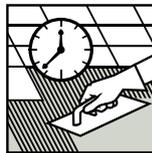
TROWEL TYPE



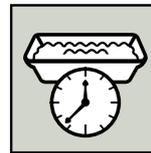
TILING TECHNIQUE



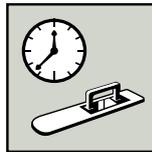
APPLICATION TIME



POT LIFE



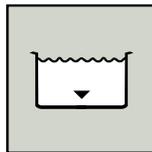
APPLICATION WITH TROWEL



INDUSTRIAL FLOORING



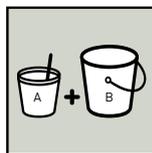
UNDER WATER PRESSURE



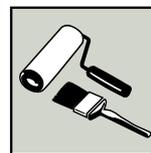
HEAVY PEDESTRIAL TRAFFIC



TWO COMPONENT PRODUCT



APPLICATION METHOD





Ceramic tile adhesive



- Easy application and excellent bonding onto all cementitious substrates,
- Non-slip, excellent performance for wall tiling,
- Easy and quick application,
- Extended open time.

DESCRIPTION

• Cement based tile adhesive for fixing small and medium sized ceramic tiles (up to 33x33 cm in sizes with water absorption ratio > %3) onto walls and floors. It is non-slip by its tixotropic feature. It allows quick and easy tiling with its extended application time feature.

AREAS OF USE

• Suitable for use in internal vertical and horizontal fixing applications. It is used for houses, apartments, offices and indoor spaces for boutique use, wet areas as bathrooms and kitchens with slight humidity.

FEATURES

Material content: High quality cement, additives for easy application.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,0-7,0 lt water / 25 kg powder
Open time : 20 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
Joint filler time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : ≥ 0,5 MPa (N/mm²)
- aging with heat : ≥ 0,5 MPa (N/mm²)
- aging with water : ≥ 0,5 MPa (N/mm²)
- freeze - thaw cycle : ≥ 0,5 MPa (N/mm²)
- extended open time (30 mins.) : ≥ 0,5 MPa (N/mm²)
Shear : ≤ 0,5 mm
Flexibility : limited
Resistance to alkalis : good
Resistance to thermal shocks : -15 °C - +70 °C

REFERENCE STANDARD

• TS EN 12004-1 / C1T class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete slabs. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
• Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.

- High porosity substrates (i.e., gypsum plasters) should be primed with **CERMIFILM** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMICOL EXTRA** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm.
- For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMIFLOOR 4-30**.

MIXING

• Gradually add 6,0-7,0 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
• The paste should be in a consistence such that it does not flow when handled with a trowel.
• The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

• The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
• Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
• Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

• Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness.
• The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
• Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
• In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMICOL EXTRA** should be used.
• Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

• If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
• Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
• Do not add more water into the mixture once the mixture is prepared.
• Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
• Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.



- Open time for **CERMICOL EXTRA** is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.

- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For fixing porcelain based or low porosity (water absorption rate <3%) tiles **CERMIPLUS** is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water, instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 3,5 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



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- Extended open time.

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- aging with water : ≥ 0,5 MPa (N/mm²)
- freeze - thaw cycle : ≥ 0,5 MPa (N/mm²)
- extended open time (30 mins.): ≥ 0,5 MPa (N/mm²)
Shear : ≤ 0,5 mm
Flexibility : limited
Resistance to alkalis : good
Resistance to thermal shocks : -15 °C - +70 °C

REFERENCE STANDARD

• TS EN 12004-1 / C1TE class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete slabs. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
• Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.

- High porosity substrates (i.e., gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMICOL SUPER** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm.
- For larger deviations, the surface should be smoothed with either **CERMI-MORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6,0-7,0 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMICOL SUPER** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.



- Open time for **CERMICOL SUPER** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.

- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For fixing porcelain based or low porosity (water absorption rate <3%) tiles **CERMIPLUS** is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



High performance porcelain tile adhesive



- Excellent tiling on walls and floors,
- Resistant to outdoor conditions,
- Resistant to water and frost,
- Resistant to thermal shocks and moisture,
- Non-slip, excellent performance for wall tiling.

DESCRIPTION

• Cement based, flexible tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) walls&floor tiles and porcelain tiles. It is non-slip by its tixotropic feature.

AREAS OF USE

• Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6-7 lt water / 25 kg powder
Open time : 20 minutes
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Bed thickness : 2-10 mm
Coverage area under tile : minimum 90%
Open to foot traffic : minimum 24 hours (for light pedestrian traffic)
Joint filler after application : 24 hours after application
Final hardening time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : ≥ 1,0 MPa (N/mm²)
- aging with heat : ≥ 1,0 MPa (N/mm²)
- aging with water : ≥ 1,0 MPa (N/mm²)
- freeze-thaw cycle : ≥ 1,0 MPa (N/mm²)
- extended open time (20 mins.) : ≥ 1,0 MPa (N/mm²)
Shear : ≤ 0,5 mm
Flexibility : good
Resistance to alkalis : good
Resistance to thermal shocks : excellent (-30 °C - +70 °C)

REFERENCE STANDARD

TS EN 12004-1 / C2T class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
• Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.

- High porosity substrates (ie, gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMIFLEX** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6-7 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

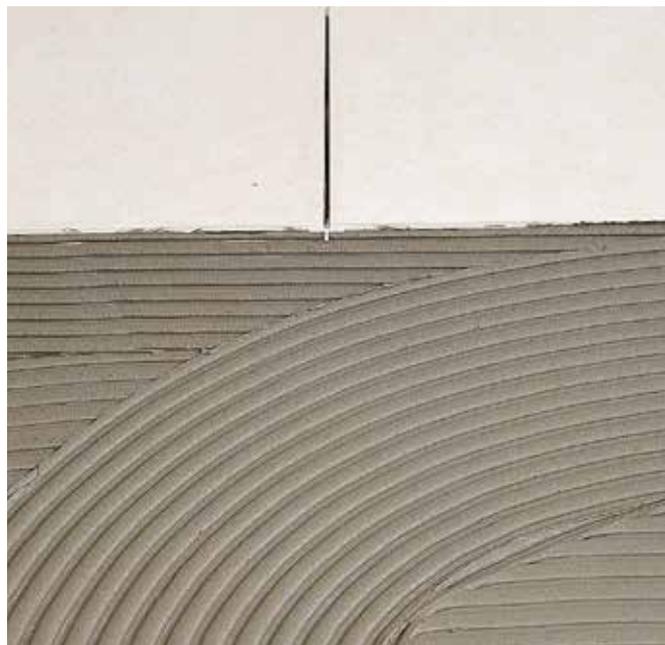
- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIFLEX** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.



- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIFLEX** is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFILM PLUS** or the mixture prepared by mixing **CERMIFLEX** and **CERMILATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



*High performance, thixotropic,
extended open time, porcelain tile
adhesive*



- Excellent tiling on walls and floors,
- Resistant to outdoor conditions,
- Resistant to water and frost,
- Resistant to thermal shocks and moisture,
- Non-slip, excellent performance for wall tiling.

DESCRIPTION

• Cement based, with extended open time tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) walls&floor tiles and porcelain tiles. It is non-slip by its thixotropic feature.

AREAS OF USE

• Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6-7 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Bed thickness : 2-10 mm
Coverage area under tile : minimum 90%
Open to foot traffic : minimum 24 hours (for light pedestrian traffic)
Joint filler after application : 24 hours after application
Final hardening time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (30 mins.) : $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : good
Resistance to alkalis : good
Resistance to thermal shocks : excellent (-30 °C - +70 °C)

REFERENCE STANDARD

TS EN 12004-1 / C2TE class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
• Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.

- High porosity substrates (ie, gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMIGRES** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6-7 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

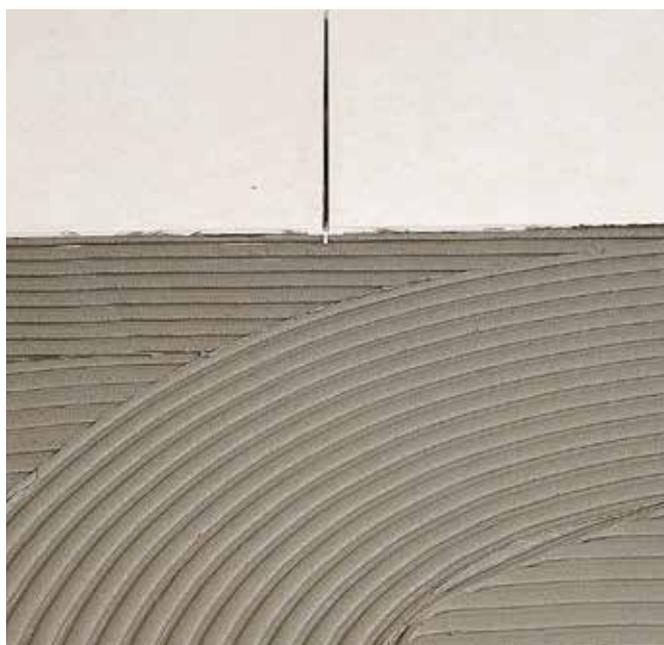
- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIGRES** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.



- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIGRES** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIPLIM PLUS** or the mixture prepared by mixing **CERMIGRES** and **CERMILATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIPLIM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF**, **CERMIPROOF FF** or **CERMI-PROOF FF PLUS**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Elastic, high performance porcelain tile adhesive



- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Non-slip, excellent performance for wall tiling,
- Flexibility and resistance to frost, moisture and thermal shocks,
- Easy and quick application with extended open time,
- Suitable for fixing onto heated floors and low porosity substrates as existing ceramic tiles.

DESCRIPTION

• It is a cement based, high bonding strength and high performance porcelain adhesive which is used for applying small, medium and large sized porcelain tile, ceramic tile, natural limestone, travertine, marble, cotto tile, brick and glass mosaic horizontally and vertically in interior and exterior surfaces such as concrete, plaster, screed. It is non-slip by its thixotropic feature. Resistant to the surface tensions due to sudden temperature changes with elasticity.

AREAS OF USE

• It is used horizontal and vertical ceramic applications in interior and exterior areas. It is ideal for wet areas, terraces, places with floor heating system and wide areas.

FEATURES

Material structure: Contains high quality cement, special additives increasing strength and elasticity, thick filling and binding materials.

Type	: Powder
Color	: Grey/white
Density	: 1,3 gr/cm ³

APPLICATION PROPERTIES

Mixture proportion	: 6-7 lt water / 25 kg powder
Open time	: 20 minutes
Application temperature:	: +5 °C - +35 °C
Pot life	: 3 hours
Adjustment time	: 25 minutes
Coverage area under tile:	: %90 minimum
Set time	: Minimum 24 hours (for light pedestrian traffic)
Joint filler time	: Minimum 24 hours (for vertical & horizontal applications)
Final set time	: 28 days (23 °C, %50 relative humidity)

TECHNICAL PERFORMANCE*

Tensile strength	
- after 28 days	: $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with heat	: $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with water	: $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- freeze-thaw cycle	: $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- extended open time (20 mins.)	: $\geq 0,5 \text{ MPa (N/mm}^2\text{)}$
Shear	: $\leq 0,5 \text{ mm}$
Resistance to thermal shocks	: -30 °C - +70 °C
Resistance to alkalis	: good
Flexibility	: good

* These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. According to the differences in construction site, the values may change.

REFERANCE STANDARD

- TS EN 12004-1 / C2T, S1 class.

APPLICATION SURFACES

• It is applicable on cement-based plaster and screed surfaces, exposed concrete and concrete floors.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **CERMIGRANIT** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6-7 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes $> 33 \times 33 \text{ cm}$, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIPLUS** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.



PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIGRANIT** is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFFILM PLUS** or the mixture prepared by mixing **CERMIGRANIT** and **CERMILATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).

- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

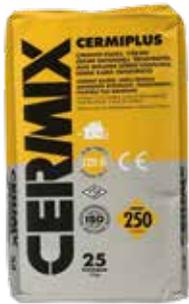
STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

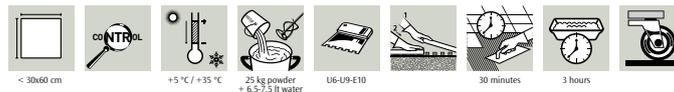
HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



High performance flexible porcelain tile and granite tile adhesive



- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Easy and quick application with extended open time,
- Suitable for fixing onto heated floors and low porosity substrates as existing ceramic tiles.

DESCRIPTION

• Cement based, flexible tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta, thermal insulation plates and bricks onto walls and floors. It is excellent particularly for fixing onto low porosity substrates. It is non-slip by its tixotropic feature. It has extended application time allowing a quick and easy tiling.

AREAS OF USE

• Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,5-7,5 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
Joint filler time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (30 mins.): $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : excellent
Resistance to alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

• TS EN 12004-1 / C2TE S1 class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly.

Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.

- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- Impervious surfaces should be primed with **CERMI-FILM PLUS** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMIPLUS** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6,5-7,5 lt (26-30%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIPLUS** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.



- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIPLUS** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFILM PLUS** is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

R PHRASES

- **R37/38** Irritating to respiratory system and skin.
- **R41** Risk of serious damage to eyes.
- **R43** May cause sensitisation by skin contact.

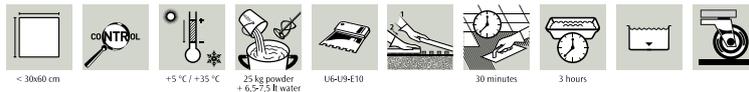
S PHRASES

- **S2** Keep out of reach of children.
- **S22** Do not breathe dust.
- **S24/25** Avoid contact with skin and the eyes.
- **S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **S36/37/39** Wear suitable protective clothing, gloves and eye/face protection.
- **S46** If swallowed, seek medical advice immediately and show this container or label.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



High performance adhesive for pool tiles



- Excellent tiling for pools and wet areas,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Easy and quick application with extended open time.

DESCRIPTION

• Cement based, water repellent, flexible tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) pool tiles and non-slip pieces, ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles and terracotta onto walls and floors. It is excellent particularly for fixing onto low porosity substrates. It is non-slip by its tixotropic feature. It has extended application time allowing a quick and easy tiling.

AREAS OF USE

• Suitable for use in internal and external, vertical and horizontal tiling applications. Ideal for tiling in wet areas (bathrooms, showers, and etc.), swimming pools, therapy pools, saunas, car-wash units and terraces.

FEATURES

Material content: High quality cement, additives providing water-repellency, flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,5-7,5 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
Joint filler time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (30 mins.) : $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : excellent
Resistance to acids and alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

• TS EN 12004-1 / C2TE class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contam-

inating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.

- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with **CERMIFILM** before fixing.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping .
- **CERMIPOOL** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6,5-7,5 lt (26-30%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C .
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIPOOL** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal,



plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.

- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIPOOL** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFFILM PLUS** is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

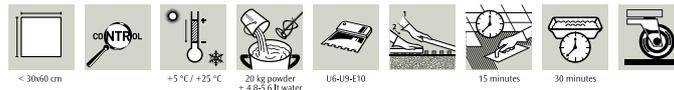
- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

CERMIPLUS RAPID



Rapid setting, flexible ceramic tile adhesive



- Ready for joint filler in 6 hours and light foot traffic in 12 hours,
- Suitable for renovations and repairs,
- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks.

DESCRIPTION

• Cement based, rapid setting, flexible tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta and klinker tiles onto walls and floors for quick restoration and repair purposes ready for light foot traffic in short times. It is non-slip by its tixotropic feature.

AREAS OF USE

• Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing rapid set feature and flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,8-5,6 lt water / 20 kg powder
Open time : 10-15 minutes
Pot life : 10-15 minutes
Application temperature: +5 °C - +25 °C
Adjustment time : 15-20 minutes
Coverage area under tile: minimum 90%
Set time : minimum 12 hours (for light pedestrian traffic)
Joint filler time : minimum 6 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (30 mins.): $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : excellent
Resistance to acids and alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

• TS EN 12004-1 / C2FT class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (con-

crete and etc.) must be removed by scabbling.

- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- Impervious surfaces should be primed with **CERMI-FILM PLUS** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +25 °C must be cooled by damping.
- **CERMIPLUS RAPID** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **CERMI-MORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 4,8-5,6 lt (24-26%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +25 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIPLUS RAPID** should be used.
- Joint filler must be done at least 6 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal,



plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.

- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIPLUS RAPID** is 10-15 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIPLUS** or the mixture prepared by mixing **CERMIPLUS RAPID** and **CERMILATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIPLUS**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



High performance, super flexible tile adhesive



- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Easy and quick application with extended open time,
- Suitable for fixing onto heated floors and low porosity substrates as existing ceramic tiles.

DESCRIPTION

• Cement based, flexible tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta, thermal insulation plates and bricks onto walls and floors. It is excellent particularly for fixing onto low porosity substrates. It is non-slip by its tixotropic feature. It has extended application time allowing a quick and easy tiling.

AREAS OF USE

• Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,5-7,5 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
Joint filler time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (30 mins.): $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : excellent
Resistance to alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

• TS EN 12004-1 / C2TE S2 class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

• The substrate must be clean in order to ensure the adhesive bonds properly.

Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.

- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with **CERMI-FILM** before fixing.
- Impervious surfaces should be primed with **CERMI-FILM PLUS** before fixing.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMIPLUS XL** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothened with either **CERMI-MORTAR 3-20** or **CERMI-FLOOR 4-30**.

MIXING

- Gradually add 6,5-7,5 lt (26-30%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **CERMIPLUS XL** should be used.
- Joint filler must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.



- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIPLUS XL** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFILM PLUS** or the mixture prepared by mixing **CERMIPLUS XL** and **CERMILATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **CERMIFILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the adhesive, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

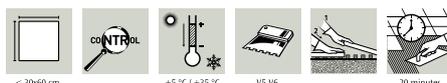
HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



*High performance and flexible
ready mixed tile adhesive*



- *Excellent tiling on gypsum based boards and plasters, cement based chip boards and precast-concrete,*
- *Excellent for all kinds of porcelain tiles, natural stones and marbles,*
- *Easy and quick tiling in renovation and repairment works,*
- *Non-slip, excellent performance for wall tiling,*
- *High flexibility and resistance to frost, moisture and thermal shocks.*

DESCRIPTION

• Acrylic dispersion based, high performance and flexible ready mixed tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta, thermal insulation plates and bricks onto walls and floors. It is excellent particularly for fixing onto high porosity substrates. It is non-slip by its tixotropic feature. It allows a quick and easy tiling.

AREAS OF USE

• Suitable for use in vertical and horizontal in internal, and vertical in external fixing applications. Ideal for tiling in wet areas. It is particularly suitable for tiling onto cement based chip boards, precast-concrete, gypsum board, and gypsum plastered, wooden surfaces. It is suitable for fixing tiles with water absorption rate >3% on painted or existing tile surfaces.

FEATURES

Material content: Dispersion based fillings and binders, synthetic resin, additives providing flexibility and improved adhesion.

Type : Ready mixed dispersion in paste form
Color : White
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : ready mixed
Open time : 20 minutes
Application temperature: +5 °C - +35 °C
Adjustment time : 25 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
(time may vary due to substrate porosity)
Joint filler time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 14 days (23 °C, 50% relative humidity)
(time may vary due to substrate porosity)

TECHNICAL PERFORMANCE

Tensile strength
- after 14 days : ≥ 1,0 MPa (N/mm²)
- aging with heat : ≥ 1,0 MPa (N/mm²)
- aging with water : ≥ 0,5 MPa (N/mm²)
Shear : ≤ 0,5 mm
Flexibility : excellent
Resistance to alkalis : limited
Resistance to thermal shocks : -30 °C - +70 °C
Resistance to moisture : good

REFERENCE STANDARD

- TS EN 12004-1 / D2T class.

APPLICATION SURFACES

• Suitable for use on cement based screeds and plasters, and timber, concrete and gypsum based substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth or wet. Relative humidity for the substrate must be below 5%.
- No priming is required for high porosity substrates (i.e., gypsum plasters) before fixing.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before fixing. No priming is required if tile porosity is high (water absorption rate >3%).
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- **CERMIFIX HP** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMIFLOOR 4-30**.

MIXING

- The adhesive ready-mixed and no mixing is required.
- It is in paste form and can be applied directly for tiling. Never add any additives (water, latex, etc.) into the ready-mixed paste.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. For efficiency, V5 or V6 type notched trowels are recommended.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- Joint filler must be done at least 24 hours later after adhesive application.



PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add any water or additive into the adhesive.
- Do not apply the adhesive directly onto the existing ceramic tiles (for fixing tiles with water absorption ratio <3%) and metal, plastic, PVC, aerated concrete surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- Do not use for external flooring tiling. It is not suitable for areas under permanent water pressure (pools, water tanks, etc.).
- On wet areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **CERMIFIX HP** is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed (no priming is required for tiles with water absorption rate >3%). As a primer **CERMIFILM PLUS** is recommended.
- It is applicable to tile on aerated concrete surfaces when primed as described above.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
V5 (5x5) mm	2 kg/mm ² 3 kg/mm ²	Single Bonding Double Bonding
V6 (6x6) mm	2,5 kg/mm ² 3,5 kg/mm ²	Single Bonding Double Bonding

PACKAGING

- Plastic cans of 15 kg (48 cans / 720 kg on a pallet)
- Plastic cans of 5 kg

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 cans should be overlaid for storage. Do not overlay pallet on pallet.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to acrylic and resin content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Two component, polyurethane based, thixotropic, solvent free adhesive



+5 °C / +35 °C

- High flexibility and bonding adherence,
- High tensile strength and break resistance,
- Water and frost resistance,
- Easy to prepare and apply,
- Solvent free,
- Improved water resistance,
- Suitable to use on many different surfaces
- Developed for over-size and thin ceramic tiles with reinforced mesh at the back of tile (1x3 m, thickness 3-5 mm)

DESCRIPTION

Two component, thixotropic, solvent free, improved water resistant, flexible, large and medium sized, thin and thick porcelain, granite, ceramic tile bonding, polyurethane adhesive.

AREAS OF USAGE

- Under floor heated applications,
- Ceramic on old ceramic applications,
- Surfaces that require high flexibility and adhesion strength,
- Areas where waterproofing should be supported.

PROPERTIES

Chemical Structure: Polyurethane
Density : 1.55 ± 0.05 gr/cm³
Color : Cream

TECHNICAL PERFORMANCE

Initial shear adhesion strength	: ≥ 2 N/mm ²	EN 12004-1
Shear adhesion strength after water immersion	: ≥ 2 N/mm ²	EN 12004-1
Shear adhesion strength after thermal shock	: ≥ 2 N/mm ²	EN 12004-1
Open time: tensile adhesion strength	: ≥ 0,5 N/mm ²	EN 12004-1
Slip	: ≥ 0,5 N/mm ²	EN 12004-1
Elasticity	: good	
Resistant to temperature	: between -15 °C and +80 °C	
Correction eligibility duration	: 20 minutes	
First dryness	: 2 hours	
Time for the application of the joint filler	: 12-14 hours	
Waiting period before use	: 24 hours	
Full curing	: 7 days	
Pot life	: 45 minutes	
Viability of the product for application	: max. 30 minutes	

APPLICATION SURFACES

• Indoors and outdoors; on horizontal and vertical surfaces for coatings such as ceramic, porcelain, granite, natural stone applications on cement based plaster, screed, concrete, metal, wood surfaces.

APPLICATION CONDITIONS AND LIMITS

- Product must not be applied on hot surfaces that are exposed to direct sunlight or to excessive wind. If it is necessary to apply the product under such circumstances, the surface and environment must be prepared for the application.
- Application in rainy weather must be avoided and the application surface must be protected against rain for a period of 24 hours.

APPLICATION PROPERTIES

- During application the surface and ambient temperature must be between +5 °C and +35 °C.

SURFACE PREPARATION

- Application surface must be dry, clean, solid and free of any dust, and while oil, dirt and any adhesion preventing substances are removed, the materials such as mortar and cement must be scraped off the surface.
- The repair of surface imperfections that are deeper than 1 cm must be repaired before application.
- Metal surfaces must be checked for rust formation. If any, such rust formation must be cleaned prior to the application.
- In hardwood applications, any loose parts on the surface must be renewed and the joints of the hardwood finishing material must be fixed in 30 cm intervals in a manner to prevent vibration prior to the application of the coating.
- Depending on the surface absorption rate, a suitable **CermiPrime PU**, **CermiPrime PU Plus** or **CermiPrime EPR 2C** must be used and it must be ensured that full dryness is achieved.
- When applying oversized tiles (1x3 meter, 3-5 mm thick) the surface should be very smooth and levelled. If the cement-based or concrete surfaces are not smooth or there are cracks, the surfaces should be repaired and levelled with suitable mortars.

MIXING

- Component A (6.25 kg) and component B (0.75 kg) must be fully mixed.

APPLICATION DETAILS

- Based on the size of the ceramic and the structure of the surface, **CERMIFIX PU 2C**, must be applied on the surface by a notched trowel (4x4x4 mm notched trowel).
- In interior or exterior applications, the adhesive must be applied on both sides (surface and tile) in application of (double bonding) the ceramic tiles larger than 40x40 cm in size.
- Joint gap of at least 3 mm must be left between the pieces of large sized finishing material.
- The finishing material must be placed on the surface and its full settlement



must be ensured by a wide plastic tipped mallet or plastic trowel.

PRECAUTIONS

- The product should be used within the pot life after mixing. Products that have reached the pot life during the application should never be used.
- No foreign materials such as lime, cement or plaster should be added to the prepared mortar.
- It should not be applied on weak surfaces.
- During and after the application, the surface should be protected from air flows and contact with water should be prevented.
- It should not be applied on surfaces that are at risk of frost, frozen or melting ice within 24 hours.
- Working and reaction times of resin-based systems are affected by ambient and ground temperature and relative humidity in the air. At low temperatures, the chemical reaction slows down, this increases the usage time and the working time. High temperatures accelerate the chemical reaction and the times mentioned above decrease accordingly. For the material to complete its curing, the ambient and surface temperature must not fall below the minimum allowed value.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Low temperatures will slow down the curing, while high temperatures will speed up the curing. In order to apply the mortar in the most efficient way, it is recommended to apply with the specified temperature range.
- Joint filler application must be started at least 6-8 hours after the adhesion process.
- An expansion joint gap of at least 10 mm must be left for each 30 m² area and the joints must be filled with Cermithane PU Sealant.
- Please contact our technical service for different applications.

CONSUMPTION

- On smooth surfaces; 1.25 kg/m² based on 4x4x4 notch trowel. The consumption amount varies based on the state of the application surface and the size of the tile.

PACKAGING

- A component: 6,25 kg and B component: 0,75 kg. 7 kg set in a metal buckets.

STORAGE AND SHELF LIFE

- Shelf life of 12 months in unopened and undamaged packages protected from moisture, water and sunlight.
- The production date is above the label.
- Once opened, sealing packages tightly won't prevent the product from solidifying. Opened packages must be consumed in a short time.

HEALTH AND SAFETY PRECAUTIONS

- Use appropriate safety equipment (mask, gloves, glasses).
- Protect your eyes and face.
- Avoid contact with skin and eyes.
- In case of contact with eyes, rinse immediately with plenty of water and consult a specialist.
- For detailed safety information, read the Material Safety Data Sheet.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

CERMIBLOCK EXTRA



Aerated concrete masonry mortar



- Fast result in aerated concrete adhesive and walling process,
- Easy and fast application,
- Extended working time.

DESCRIPTION

• It is a cement-based aerated concrete adhesive walling mortar.

AREA OF USE

• It is recommended to use it in construction materials such as bricks, aerated concrete with high water absorption properties.

CHARACTERISTICS

Material structure: It is mixed with cement and contains additives facilitating the application

Type : Powder
 Colour : Gray / White
 Specific gravity : 1,2 gr/cm³

APPLICATION FEATURES

Mixing ratio : 6,0-7,0 liter water for 25 kg mixture
 Operation (working) time of mixture : 2 hours
 Application temperature : +5 °C to +35 °C
 Fully hardening time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE*

Tensile adhesion strength
 - initial (after 28 days) : ≥ 0,5 MPa (N/mm²)
 - after aging with heat : ≥ 0,5 MPa (N/mm²)
 - after aging with water : ≥ 0,5 MPa (N/mm²)
 - after freeze-thaw cycle : ≥ 0,5 MPa (N/mm²)
 - waiting time as open (after 30 min) : ≥ 0,5 MPa (N/mm²)
 Flexibility : limited

*These values are obtained as a result of laboratory tests and they are performance values of finished applications after 28 days. Values may change due to the differences in site environment.

APPLICATION SURFACES

• It is appropriate for use in aerated concrete walling process.

SURFACE PREPARATION

• The surfaces to be applied should be free from dust, dirt, oil, etc., should be smooth and solid, not too dry or sweaty.
 • In order to remove surface defects, the first course should be walling by aligning with the scale. For other courses, this is not necessary.

MIXTURE

• 25 kg **CERMIBLOCK EXTRA** should be added slowly into 6-7 kg (24-28%) clean water, the mixture should be mixed until it is homogeneous without lumps.
 • It is recommended to use low speed mixer for lump-less and homogenous mix.
 • The mixture should be in a non-flowing consistency when it is placed on the trowel.
 • The mixture is rested for 5 minutes before applying and it is mixed again for 1-2 minutes, then it is applied.

APPLICATION REQUIREMENTS

• During application of the product, the ambient temperature should be between +5 °C and +35 °C
 • The application should not be made on frosted surfaces or the surfaces to be frosted.
 • Application should not be made on extremely hot surfaces, in very sunny and strong windy weather.

APPLICATION

• The **CERMIBLOCK EXTRA**, which spreads well on the surface with the flat side of the notched steel trowel, must then be combed upon the desired notch thickness.
 • While walling, maximum 3 mm width joint gaps should be left in horizontal and vertical, and it should be ensured that these gaps should not be filled with adhesive.
 • Aerated concrete adhesive process should be performed on the applied mortar within 10-15 minutes.

POINTS TO TAKE INTO CONSIDERATION

• If hardening or petrification is detected after opening of the packaging, the product should not be used.
 • Do not add more or less water into the mixture than the specified value on the packaging.
 • After the mixture has been prepared, additional water should not be added into the mixture.

CONSUMPTION

• Approximate amount of consumption (kg/m²) may vary depending on application surface, tile size and the used comb trowel size.

COMB TROWEL SIZE	CONSUMPTION	APPLICATION
U6 (6x6x6) mm	3 - 3,5 kg	One-Way Adhesion
U9 (9x9x9) mm	4 - 5 kg	One-Way Adhesion

PACKAGING DETAILS

• 25 kg craft bags (Palette 48 pcs / 1200 kg)

STORAGE AND SHELF LIFE

• Attention must be taken to place a maximum of 10 craft bags on top of each other for storage.
 • The product storage conditions must be followed, the products should not be stored in humid and watered warehouses.
 • Shelf life is 1 year provided that the packages are protected in closed and dry environments. The date of manufacture and the charge number are indicated on the packaging.
 • When not in use, the packaging should be tightly closed.



SECURITY PRECAUTIONS

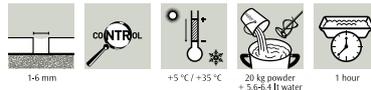
- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. If necessary, a dust mask should be used.
- Products should be kept out of reach of children.
- Consult a physician if necessary.
- **R38:** Irritates to skin.
- **R41:** Includes Chromium VI causing serious eye damage. An allergic reaction may occur.
- **R43:** May cause sensitization by contacting with skin.
- **S2:** Keep out of reach of children.
- **S22:** Do not breathe dust
- **S24/25:** Avoid contact with eyes and skin
- **S26:** In case of contact with eyes, rinse immediately with plenty of water and consult a physician.
- **S37/39:** Wear suitable protective gloves and eye / mask.
- **S46:** If swallowed, consult a physician immediately and show the package and label.

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G

Joint filler



- Ideal for all kinds and sizes of tiles,
- Crack free formula,
- Gives full colour and easily applied,
- Improved water repellency and easy cleaning.

DESCRIPTION

• Cement based, plasticized and water repellent joint filler for joints 1-6 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value, thus crack free. It allows a quick and easy joint filler.

AREAS OF USE

• Suitable for use in internal, vertical and horizontal joint filler applications. Ideal for tiling in wet areas, terraces and wide areas with **CERMILATEX** additive.

FEATURES

Material content: High quality cement, additives providing water repellency and fine fillings.

Type : Powder
Color : List colours
Density : 1,4 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,6-6,4 lt water / 20 kg powder
Pot life : 1 hour
Application temperature: +5 °C - +35 °C
Joint width : 1-6 mm
Joint filler time : as instructed on the adhesive technical sheet.
Set time : minimum 24 hours (for light pedestrian traffic)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 5 gr
Water absorption (after 240 minutes) : < 10 gr
Resistance to moisture : good
Resistance to alkalis : good
Resistance to acids : good (for Ph > 3 acids)
Temperature resistance : -30 °C - +70 °C
Bending strength : ≥ 3,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle) : ≥ 3,5 MPa (N/mm²)
Compressive strength : ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle) : ≥ 15 MPa (N/mm²)
Abrasion strength : < 2000 mm³
Shrinkage : < 2 mm/m

REFERENCE STANDARD

• EN 13888 / CG1 class.

SURFACE PREPARATION

- Joint filler should start after the adhesive has set and dried. Joint filler's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the joint filler bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (i.e., gypsum plasters or non-glazed tiles) should be wetted before joint filler.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 5,6-6,4 lt (30%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The joint filler should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the joint filler in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess joint filler immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the joint filler within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the joint filler.
- Time for cleaning the excess joint filler from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the joint filler. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker joint filler colours.
- Final cleaning to remove the joint filler residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with **CERMINET** tile cleaning material to loosen and remove these residues.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker joint filler colours.
- Test the grout on a spare tile before joint filler against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.



- Be particular about tiles with soft surface which can be scratched during joint filler.
- Minimum 7 days of set time should be waited to fill in the pools after joint filler.
- **CERMIJOINT 1-6 EXTRA mm**, pot life and waiting time for initial cleaning are 1 hour and 10-15 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates). On this account, wetness of the joint filler should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when joint filler impervious or sealed tiles.
- Minimum application thickness of the joint filler should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious joint fillers are not appropriate for expansion joints.
- Grouted surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.
- Cementitious joint fillers have improved water repellency but not absolutely impermeable. Before tiling and joint filler wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).

SPECIAL CONDITIONS

- To improve the technical performance of the joint filler (improved resistance and flexibility and water repellency features), it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.
- Grout Coverage (kg/m²) = (A+B)X_CX_DX_E / (AxB)
- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density

Tiles sizes	Thickness (mm)	Joint width (mm)	*Coverage (kg/m ²)
10x10 cm	6	3	0,550
33x33 cm	8	4	0,290
20x20 cm	7	3	0,310
25x33 cm	8	3	0,250
20x25 cm	7	4	0,370
30x30 cm	7	3	0,210

*The amount of sample consumption.

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

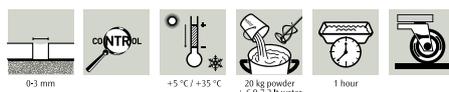
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G



Flexible, silicone added joint filler



- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- Suitable for joint filler glass tile and mosaic applications,
- Suitable for application onto heated floors and low porosity substrates such as existing ceramic tiles,
- Improved water repellency and easy cleaning. Ideal for pools, terraces and wet areas.

DESCRIPTION

Cement based, fine grained joint filler with improved flexibility, abrasion resistance and water repellency, silicone added, for joints between 0-3 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value and allows a quick and easy joint filler and easy cleaning.

FIELDS OF APPLICATION

Suitable for use in internal and external areas, vertical and horizontal joint filler applications. Ideal for pools, terraces and wet areas with improved water repellency feature. Particularly suitable for applications onto heated floors, facades, timber substrates and wide floors with high flexibility feature. Applicable on industrial floors requiring any chemical resistance.

PROPERTIES

Material content: High quality cement, additives providing water repellency and flexibility, with thick fillings.

Type : Powder
 Color : List colours
 Density (Dry) : 1,0 gr/cm³
 Density (Mortar) : 1,7 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,8-7,2 lt water / 20 kg powder
 Pot life : 1 hour
 Application temperature: +5 °C - +35 °C
 Joint width : 0-3 mm
 Joint filler time : as instructed on the adhesive technical sheet.
 Setting time : minimum 24 hours (for light pedestrian traffic)
 Final setting time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes)	: < 2 gr
Water absorption (after 240 minutes)	: < 5 gr
Resistance to moisture	: excellent
Resistance to alkalis	: excellent
Resistance to acids	: good (for Ph > 3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 3,5 MPa (N/mm ²)
Bending strength (freeze-thaw cycle)	: ≥ 3,5 MPa (N/mm ²)
Compressive strength	: ≥ 15 MPa (N/mm ²)
Compressive strength (freeze-thaw cycle)	: ≥ 15 MPa (N/mm ²)
Abrasion strength	: < 1000 mm ³
Shrinkage	: < 2 mm/m

REFERENCE STANDARD

• EN 13888 / CG2 WA class.

SURFACE PREPARATION

• Joint filler joint filler should start after the adhesive has set and dried. Joint filler's color may have stain due to adhesive's cement content and color.
 • The joints and tile surface must be clean in order to ensure the joint filler bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.

- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (ie, gypsum plasters or non-glazed tiles) should be wetted before joint filler.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 6,8-7,2 lt (34%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The joint filler joint filler should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the joint filler in the joints completely with a suitable squeegee or a rubber joint filler trowel leaving no voids. Work on a small area at a time. Remove the excess joint filler immediately using a rubber joint filler trowel moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the joint filler within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the joint filler.
- The cleaning time of the excess joint filler from tile surface is just when the grout starts drying. This period may vary depending on the current environmental conditions (temperatures, humidity and etc.), which is 10-15 minutes under normal conditions. This time may shorten in the high temperatures and may extend at low temperatures. Exact time may be determined by touching the joint filler. When the material slightly spreads on the finger, cleaning phase should start immediately.
- Use a dampened cleaning pad or sponge to clean the tiles. Move the pad or sponge diagonally (at 45°) or in a circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are removed. Use only clean and non-chalky water to dampen the pad or sponge to clean the joints, otherwise the grout performance may be weakened and holes and surface discoloration and variation may be encountered.
- When the joint filler is dry, approx. one day after the application, remove the joint filler residues as the final cleaning.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with CERMINET tile cleaning material to loosen and remove these residues.



PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will weaken the final performance of the grout. It may also cause pin holes and discoloration and color variations on the grout surface, which will be more noticeable with dark color joint fillers.
- Pre-trial with samples should be done in order to prevent staining, for joint filler applications in porous textured, matt or glazed tiles and natural stones. Porous tiles are recommended to be treated with an appropriate protective sealer to avoid stains.
- Soft surfaced ceramic tiles may be scratched during the joint filler application.
- Pools should be filled with water, 7 days after the grout setting time.
- Product pot life is 1 hour; initial cleaning can be made 10-15 minutes after the pot life. Durations will be shortened for applications with inconvenient conditions (due to high temperatures, dry air and strong wind and fixing onto high porosity substrates). In this case, wetness of the joint filler should be tested by touching to avoid early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when the joint filler is done on impervious or sealed tiles.
- Expansion joints should be used to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate, when there is heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious joint fillers are not appropriate for expansion joints.
- Grouted surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.
- Cementitious joint fillers have improved water repellency but are not fully impermeable. Before tiling and joint filler wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (CERMICRYL, CERMIPROOF SF or CERMIPROOF FF, etc.).

SPECIAL CONDITIONS

- To improve the technical performance of the joint filler (improved resistance and flexibility and water repellency features), it is recommended to add CERMILATEX into the mixing water in the ratio 1:3 (2 scales of water and 1 scale of CERMILATEX).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the tile size, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.
- Grout Coverage (kg/m²) = (A+B)xCxDxE / (AxB)
- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,7)

Tiles sizes	Thickness (mm)	Joint width (mm)	*Coverage (kg/m ²)
10x10 cm	6	3	0,400
20x20 cm	7	3	0,350
25x33 cm	8	3	0,280
30x30 cm	7	3	0,238

*The amount of sample consumption.

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)
- Kraft sacks of 10 kg (100 sacks / 1000 kg on a pallet)
- Polythene bags of 5 kg (in boxes of 20 kg, 36 boxes / 720 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and batch number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

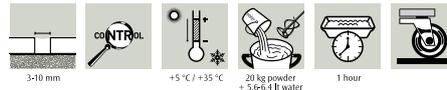
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CERMIJOINT 3-10 FLEX



G

Flexible, silicone added joint filler



- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- With high abrasion strength, suitable for floors under heavy pedestrian traffic,
- Particularly suitable for application onto heated floors and low porosity substrates such as existing ceramic tiles,
- Improved water repellency and easy cleaning. Ideal for pools, terraces and wet areas.

DESCRIPTION

• Cement based, coarse grained joint filler with improved flexibility, abrasion resistance and water repellency, silicone added, for joints between 3-10 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value and allows a quick and easy joint filler and easy cleaning.

FIELDS OF APPLICATION

• Suitable for use in internal and external areas, vertical and horizontal joint filler applications. Ideal for pools, terraces and wet areas with improved water repellency feature. Particularly suitable for applications onto heated floors, facades, timber substrates and wide floors with high flexibility feature. Applicable on industrial floors requiring any chemical resistance.

PROPERTIES

Material content: High quality cement, additives providing water repellency and flexibility, with thick fillings.

Type : Powder
 Color : List colours
 Density (Dry) : 1,12 gr/cm³
 Density (Mortar) : 1,8 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,6-6,4 lt water / 20 kg powder
 Pot life : maximum 1 hour
 Application temperature : +5 °C - +35 °C
 Joint width : 3-10 mm
 Joint filler time : as instructed on the adhesive technical sheet.
 Setting time : minimum 24 hours (for light pedestrian traffic)
 Final setting time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes)	: < 2 gr
Water absorption (after 240 minutes)	: < 5 gr
Resistance to moisture	: excellent
Resistance to alkalies	: excellent
Resistance to acids	: good (for Ph > 3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 3,5 MPa (N/mm ²)
Bending strength (freeze-thaw cycle)	: ≥ 3,5 MPa (N/mm ²)
Compressive strength	: ≥ 15 MPa (N/mm ²)
Compressive strength (freeze-thaw cycle)	: ≥ 15 MPa (N/mm ²)
Abrasion strength	: < 1000 mm ³
Shrinkage	: < 2 mm/m

REFERENCE STANDARD

- TS EN 13888 / CG2 WA class.

SURFACE PREPARATION

- Joint filler joint filler should start after the adhesive has set and dried. Joint filler's color may have stain due to adhesive's cement content and color.
- The joints and tile surface must be clean in order to ensure the joint filler bonds properly. Surfaces should be clean and free from dust, dirt, grease or any

other contaminating barrier.

- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (i.e., gypsum plasters or non-glazed tiles) should be wetted before joint filler.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 5,6-6,4 lt (30 %) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The joint filler should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the joint filler in the joints completely with a suitable squeegee or a rubber joint filler trowel leaving no voids. Work on a small area at a time. Remove the excess joint filler immediately using a rubber joint filler trowel moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the joint filler within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the joint filler.
- The cleaning time of the excess joint filler from tile surface is just when the grout starts drying. This period may vary depending on the current environment conditions (temperatures, humidity and etc.), which is 10-15 minutes under normal conditions. This time may shorten in the high temperatures and may extend at low temperatures. Exact time may be determined by touching the joint filler. When the material slightly spreads on the finger, cleaning phase should start immediately.
- Use a dampened cleaning pad or sponge to clean the tiles. Move the pad or sponge diagonally (at 45°) or in a circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are removed. Use only clean and non-chalky water to dampen the pad or sponge to clean the joints, otherwise the grout performance may be weakened and holes and surface discoloration and variation may be encountered.
- When the joint filler is dry, approx. one day after the application, remove the joint filler residues as the final cleaning
- If any residues remain after final cleaning, wait for 10 days and treat the tile with CERMINET tile cleaning material to loosen and remove these residues.

PRECAUTIONS



- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will weaken the final performance of the grout. It may also cause pin holes and discoloration and color variations on the grout surface, which will be more noticeable with dark color joint fillers.
- Pre-trial with samples should be done in order to prevent staining, for joint filler applications in porous textured, matt or glazed tiles and natural stones. Porous tiles are recommended to be treated with an appropriate protective sealer to avoid stains.
- Soft surfaced ceramic tiles may be scratched during the joint filler application.
- Pools should be filled with water, 7 days after the grout setting time.
- Product pot life is 1 hour; initial cleaning can be made 10-15 minutes after the pot life. Durations will be shortened for applications with inconvenient conditions (due to high temperatures, dry air and strong wind and fixing onto high porosity substrates). In this case, wetness of the joint filler should be tested by touching to avoid early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when the joint filler is done on impervious or sealed tiles.
- Minimum application thickness of the joint filler should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be used to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate, when there is heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious joint fillers are not appropriate for expansion joints.
- Grouted surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.
- Cementitious joint fillers have improved water repellency but are not fully impermeable. Before tiling and joint filler wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**, etc.).

SPECIAL CONDITIONS

- To improve the technical performance of the joint filler (improved resistance and flexibility and water repellency features), it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the tile size, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

$$\text{Grout Coverage (kg/m}^2\text{)} = (A+B) \times C \times D \times E / (A \times B)$$

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,8)

Tiles sizes	Thickness (mm)	Joint width (mm)	*Coverage (kg/m ²)
10x10 cm	6	3	0,640
33x33 cm	8	4	0,340
20x20 cm	7	3	0,370
25x33 cm	8	3	0,300
20x25 cm	7	4	0,450
30x30 cm	7	3	0,250

*The amount of sample consumption.

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)
- Kraft sacks of 10 kg (100 sacks / 1000 kg on a pallet)
- Polythene bags of 5 kg (in boxes of 20 kg, 36 boxes / 720 kg on a pallet)
- Polythene bags of 1 kg

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and batch number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



G

Fast setting, flexible joint filler for pools



- Suitable for pools and areas requiring chemical resistance,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- With high abrasion strength, suitable for floors under heavy pedestrian traffic,
- Improved water repellency and easy cleaning.

DESCRIPTION

• Cement based, plasticized fast setting joint filler with improved chemical resistance to alkalis and weak acids and high flexibility and water repellency, for joints 2-10 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value, thus crack free. It allows a quick and easy joint filler, ready to service in 3 hours.

AREAS OF USE

• Suitable for use in internal and external areas, vertical and horizontal joint filler applications. Ideal for pools, terraces and wet areas with improved water repellency feature. Particularly suitable for applications requiring chemical resistance (to alkalis and weak acids) such as industrial floors or laboratories. Applicable in water tanks with salty or sulfated water.

FEATURES

Material content: High quality cement, additives providing water repellency and flexibility, and fine fillings.

Type	: Powder
Color	: List colours
Density	: 1,3 gr/cm ³

APPLICATION PROPERTIES

Mixture rate	: 3,3-3,5 lt water / 15 kg powder
Pot life	: 45 minutes
Application temperature:	+10 °C - +25 °C
Joint width	: 2-10 mm
Joint filler time	: as instructed on the adhesive technical sheet.
Set time	: minimum 3 hours (for light pedestrian traffic)
Final set time	: 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes)	: < 2 gr
Water absorption (after 240 minutes)	: < 5 gr
Resistance to moisture	: excellent
Resistance to alkalis	: excellent
Resistance to acids	: good (for Ph > 3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 3,5 MPa (N/mm ²)
Bending strength (freeze-thaw cycle)	: ≥ 3,5 MPa (N/mm ²)
Compressive strength	: ≥ 15 MPa (N/mm ²)
Compressive strength (freeze-thaw cycle)	: ≥ 15 MPa (N/mm ²)
Abrasion strength	: < 1000 mm ³
Shrinkage	: < 2 mm/m

REFERENCE STANDARD

- TS EN 13888 / CG2 WA class.

SURFACE PREPARATION

- Joint filler should start after the adhesive has set and dried. Joint filler's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the joint filler bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.

- Joints on high porosity substrates or surfaces (ie, gypsum plasters or non-glazed tiles) should be wetted before joint filler.
- The surfaces exposed to direct sunlight and have a surface temperature above +25 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 3,3-3,5 lt (22-23%) of clean water to 15 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The joint filler should be applied at an ambient temperature range of +5 °C - +25 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the joint filler in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess joint filler immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the joint filler within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the joint filler.
- Time for cleaning the excess joint filler from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the joint filler. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discoloration and variation which will be more noticeable with darker joint filler colours.
- Final cleaning to remove the joint filler residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with CERMINET tile cleaning material to loosen and remove these residues.



PRECAUTIONS

- The joint filler is a fast setting product. During application phases always pay attention to sudden setting, especially when applied outdoor under sun.
- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker joint filler colours.
- Test the grout on a spare tile before joint filler against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during joint filler.
- Minimum 7 days of set time should be waited to fill in the pools after joint filler.
- For **CERMIJOINT 2-10 HRC**, pot life and waiting time for initial cleaning are 45 minutes and 10 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness of the joint filler should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when joint filler impervious or sealed tiles.
- Minimum application thickness of the joint filler should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious joint fillers are not appropriate for expansion joints.
- Grouted surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.
- Cementitious joint fillers have improved water repellency but not absolutely impermeable. Before tiling and joint filler wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.
- Grout Coverage (kg/m²) = $(A+B) \times C \times D \times E / (A \times B)$
- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,4)

Tiles sizes	Thickness (mm)	Joint width (mm)	*Coverage (kg/m ²)
10x10 cm	6	3	0,550
33x33 cm	8	4	0,290
20x20 cm	7	3	0,310
25x33 cm	8	3	0,250
20x25 cm	7	4	0,370
30x30 cm	7	3	0,210

*The amount of sample consumption.

PACKAGING

- Plastic cans of 15 kg (44 cans / 660 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



G

Special-purpose, epoxy resin-based, high resistance to chemical, easily wipeable joint filling material



- Safe and hygienic solution for industrial plants, plantations, food plants,
- Special formula for the places requiring high resistance to mechanic and chemical,
- High resistance to freeze, humidity and thermal shocks,
- Resistance to bacteria, mold growth and contamination and easily wipeable,
- Formula not having solvent and cleaning with cold water.

DESCRIPTION

Hygienic joint filling material which is two-compound, without solvent epoxy resin-based and resistant to acid, alkali and chemicals is suitable for watertight tile ceramic surfaces. It can be used 2-10 mm joint wideness if all kinds of floor coating. It is hygienic, dirt-resistant. It is easy to clean with cold water. It has the feature of hardening without dunting.

AREAS OF USE

It is used for joint applications among ceramics in horizontal and vertical surfaces in interior and exterior places. Thanks to its feature of watertight and non-dunting, it is suitable to be used in wet areas, pools, terraces and broad areas. It is ideal to be used in the areas requiring high resistance to acid and bases and high mechanical strength (industrial plants, olympic pool, car service, laboratory, water tanks etc.). It can be used in hospitals because of its hygienic feature.

FEATURES

Material structure:

- compound (A): Epoxy resin based paste

- compound (B): Hardening paste

Type : Compound (A) + Compound (B)

Color : Grey / white / beige / anthracite

Specific weight : 1,6 gr/cm³

APPLICATION PROPERTIES

Application (working) time	: 50 minutes in +20 °C 40 minutes in +30 °C,
Application temperature	: +12 °C - +30 °C
Recommended joint expansion:	2-10 mm
Joint filling time	: Stated in the adhesion type used.
Pedestrian traffic opening time:	24 hours (non-intense pedestrian traffic) in +20 °C
Complete curing time	: 7 days (23 °C, %50 relative humidity)

TECHNICAL PERFORMANCE*

Water absorbent amount (240 minutes later)	: ≤ 0,1 gr
Resistant to humidity	: perfect
Resistant to temperature	: -20 °C - +80 °C
Bending strength	: ≥ 30 MPa (N/mm ²)
Compression strength	: ≥ 45 MPa (N/mm ²)
Abrasive strength	: ≤ 250 mm3
Shrinking value	: ≤ 1,5 mm/m

* These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. According to the differences in construction site, the values may change.

REFERENCE STANDARD

- TS EN 13888 / RG class.
- G

SURFACE PREPARATION

- Joint intervals should be clean.
- The application surfaces should be cleaned from dust, dirt, grease etc. and be smooth and steady, not so dry or bleeding.

- Before completing its recommended curing period, joint filling application should be done.
- In unglazed or high-absorbent surfaces, joint intervals should be wet by a wet sponge before carrying out joint procedure.
- Before applying on the surfaces which are exposed to direct sunlight and overheated, the surface should be moistened by sprinkling water and the surface temperature should be decreased.

MIXING

- The suitable working temperature of **CERMIJOINT EPOSOL PRO** is +20 °C. In low temperatures, the product should be heated to 20°C; in the event of high temperature, the product should be cooled to 20 °C.
- Mix Compound A and Compound B for minimum 3 minutes until it becomes smooth and homogeneous.
- Do not add any additives other than compounds. The mixture ratio of compound A and Compound B should not be changed.
- When the mixture is taken to trowel, it should not be bleeding.

APPLICATION CONDITIONS

- The ambient temperature should be between +12 °C / +30 °C during the application.
- No application should be done on frozen or frost hazard surfaces.
- No application should be done on overheated floors, sunny and blustery weathers.
- In order to make the mixture fluid, do not add water or any additives unless otherwise specified. For the conditions when chemicals are different from the ones stated in resistance table in updated **CERMI** technical catalogue, please consult us.

APPLICATION

- The prepared joint filling should be filled into the joint intervals with rubber spatula or steel trowel. During the application, do not spread mortar to the tile surface like cement based joint filling materials, do not overflow out of the intervals as far as possible (product waste can be reduced and last clean will be easy.) Extra joint filling mortar should be cleaned from the surface.
- The period for cleaning joint filling material from the surface is when the surface of joint filling material becomes matt. This period may vary depending on the ambient conditions. While in normal conditions this period is 40 minutes in +20 °C ambient temperature, this may shorten in high temperature, extend in low temperature. In order to find the appropriate period, touch the remains of joint material on tile by finger. If mortar gets at finger, it means that material dries enough for cleaning.
- Clean water should be used in cleaning procedure.
- It is recommended special cleaning pads for epoxy applications to be used for cleaning. At first phase, the mold is cleaned by thick filled pad. The application is carried out with circular motions and so, it is prevented the joint filling material to separate from the surface.
- At second phase, cleaning is carried out thin filled pad. Application is done in a same way the one at the first phase.
- In final cleaning, the remains in the surface are cleaned with diagonal motions (45 degree angle) by using a wet sponge. Water should be used in order to humidify the sponge. Cleaning water for dirty sponge should be set apart. When contacted to the surface, if there is adhesion, final cleaning should be carried out again by using wet sponge.



PRECAUTIONS

- After the bags open, if there is a hardening or petrification in the product, the product should not be used.
- Do not add water or solvent into the product.
- After mixing compounds A and B, the product is divided into 2-3 pieces in order for it not to freeze.
- In pool and industrial surface applications, in order for joint material to get sufficient strength it should be waited for minimum 7 days.
- The application period of **CERMIJOINT EPOSOL PRO** is 50 minutes in +20 °C, waiting period for first cleaning after application is 40 minutes. However, in non-suitable ambient conditions (high temperature) these periods shorten, this period may reduce to 10-15 minutes depending on the severity of the conditions. So, wetness test is done against the possibility of early hardening by contacting with finger. When mortar does not contaminate to the finger, cleaning should be done. In ambient conditions which are low-temperature and high humidity, period of dry may extend.
- Joint filling should be done at least at 3 mm thickness. Because of its large filling structure, narrower joint filling may not fill greater joint holes. In this circumstance, it cannot show its expected final performance
- By considering possible thermal stress and mechanical loads, referring to the systems which transfer temperatures in regions with the temperature changes between the seasons and insulation applications, expansion joints should be left on the floor depending on the load and pedestrian traffic on the surface in applications in wide spaces and expanding profiles or joint filling sealants (PU, MS Polymer, silicon based etc.) should be used for these joints.
- The surfaces where joint is applied should be protected from direct sunlight, frost and rain for 24 hours minimum.
- Wood dust should not be used in surface cleaning procedure.
- While applying bright porcelain tiles impregnated natural stones, pre-testing is done against spotting risk and necessary measures should be taken before the application. Usage of non-suitable materials causes spot to be processed deeper.
- Epoxy based joint filling material is watertight but it is not water isolation. So, in interior (pool, terrace etc.) and wet places (bathroom, toilet etc) applications, before making tile floor, it is recommended water isolation (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**) to be used.
- Usage of general cleaning materials such as bleach, lime remover etc. may cause damages of colorful joint fillings. Cleaning of joint filling should be done by appropriate materials.
- Depending on the weather conditions and sunrays (UV), there may be color damages and yellowing in hardened joint filling material. This circumstance is a natural behavior of the epoxy resin based products.
- In the event of contacting with some materials having chemical effect for a long time (for example continuous contacting with high-concentrated acids), color deformation may occur.

SPECIAL CONDITIONS

- Acid or alkali balances should be definitely controlled in industrial surface applications. The effect of the chemicals in the ambient on epoxy joint filling material should be controlled from the enclosed resistance of chemical products table. Especially before applications in milk and milk products plants, tech-

nical service should be consulted.

COVERAGE

- The approximate consumption (kg/m²) may vary by the application surface, tile size and notch size used.

Ceramic sizes	Thickness (mm)	Joint wideness (mm)	*Consumption (kg/m ²)
10x10 cm	6	3	0.680
33x33 cm	8	4	0.360
20x20 cm	7	3	0.390
25x33 cm	8	3	0.310
20x25 cm	7	4	0.460
30x30 cm	7	3	0.260

*Sample consumption amount

PACKAGING

- In 5 kg plastic buckets (96 pieces / 480 kg in a pallet)

STORAGE AND SHELL LIFE

- Pay attention to pile 10 plastic buckets maximum for storage.
- The product should be suitable for storage conditions; no product should be stored in humid and flooded storehouses.
- The shelf life is 1 year on condition that the packages are stored in closed and humid-free places. Production date and load number are stated on the packages.
- When it is not used, the package should be closed tightly.
- The products should not be stored under 12 °C. Crystallization may occur in the product stored in low temperatures. This situation may make application product harder to be applied. Before using the products stored in low temperatures, they should be waited in +20-23 °C ambient temperature for 2 days. During this period, crystals thaw and become homogenous enough to apply product.

HEALTH AND SAFETY

- **CERMIJOINT EPOSOL PRO**, contains epoxy resin and amine hardener.
- Avoid contacting with eye and skin. Wash the surfaces contacted with it with plenty of water.
- During the application of product, wear rubber gloves and protective eye-glasses.
- Do not inhale the product directly. Do not inhale product steam arising from vaporizing depending on the ambient temperature. Wear masks in necessary cases. Ventilate the ambient during the application.
- Keep the products out of reach of children.
- Consult doctor in necessary cases.

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EASY CLEANING EPOXY JOINT RESISTANCE TABLE

ALKALI RESISTANCE		
CHEMICAL NAME	CONCENTRATION	RESISTANCE
Sodium Hydroxide	50%	+
Potassium Hydroxide	30%	+
Bleach*	5%	(+)
Salt water Saturated	Doymuş	+
Sugar water Saturated	Doymuş	+
Hydrogen Peroxide	1%	+
Potassium Permanganate*	5%	(+)
Aqueous Ammonia	25%	+
Acetic Acid	2,5%	-
Hydrochloric Acid*	37%	(+)
Citric Acid	10%	+
Formic Acid*	2,5%	+
Oxalic Acid	10%	+
Lactic Acid	2,50%	-
Phosphoric Acid*	50%	(+)
Sulfuric Acid*	50%	+
Chromic Acid*		+
Mineral water		+
Lemon juice*		+
Coke*		+
Descaler*		(+)
RESISTANCE TO SOLVENTS		
CHEMICAL NAME	CONCENTRATION	RESISTANCE
Glycerine		+
Methanol		+
Formaldehyde	37%	+
Triethanolamine		+
Trichloroethylene		-
Monopropylene glycol		+
Synthetic Thinner		+
Acetone		+
OIL RESISTANCE		
CHEMICAL NAME	CONCENTRATION	RESISTANCE
Olive oil		+

* INDICATES COLOR CHANGE.

+ Resistant to related chemicals.

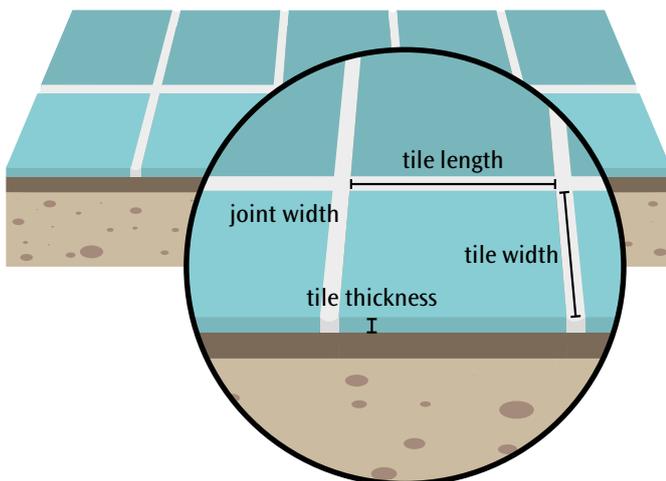
(+) It is resistant to the relevant chemicals in short-term contact.

- It is not resistant to related chemicals.

COLOR CHART for JOINT FILLERS

COLORS	PRODUCTS	CERMIJOINT 1-6 EXTRA			CERMIJOINT 0-3 FLEX			CERMIJOINT 3-10 FLEX			CERMIJOINT 2-10 HRC	CERMIJOINT EPOSOL PRO
		20 kg	20 kg	10 kg	5 kg	20 kg	10 kg	5 kg	1 kg	15 kg	5 kg	
WHITE		○	○	○	○	○	○	○	○	○	○	
CREME		○	○	○	○	○	○	○	○			
WHITE MOSS GREY					○							
JASMIN			○	○	○	○	○	○	○			
BEIGE		○	○	○	○	○	○	○	○		○	
BAHAMA BEIGE					○			○	○			
SAHARA BEIGE			○	○	○	○	○	○	○			
WHITE CLAY BEIGE					○							
CLAY BEIGE					○							
MOSS GREY					○							
EFES BEIGE			○	○	○	○	○	○	○			
GREEN					○			○	○			
GREY		○	○	○	○	○	○	○	○			
SILVER			○	○	○	○	○	○	○	○	○	
DARK GREY			○	○	○	○	○	○	○		○	
ANTHRACITE					○			○	○			
BLACK					○			○	○			
STARDUST					○			○	○			
MOCKA BROWN					○			○	○			

JOINT FILLERS CONSUMPTION TABLE



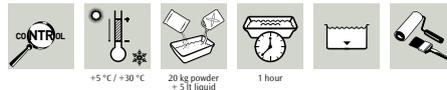
$$\text{Joint Filler Consumption (kg/m}^2\text{)} = \frac{(A + B) \times C \times D \times E}{(A \times B)}$$

A : Tile length (mm)	E : Density
B : Tile width (mm)	- CERMIJOINT 1-6 EXTRA : 1,8
C : Tile thickness (mm)	- CERMIJOINT 0-3 FLEX : 1,7
D : Joint width (mm)	- CERMIJOINT 3-10 FLEX : 1,7
	- CERMIJOINT 2-10 HRC : 1,75
	- CERMIJOINT EPOSOL PRO : 1,6

* Calculation formula is theoretical. Please consider 10% more of calculated quantity because of the application casualities.



Two component, cement based, semi-elastic, waterproofing material



- High adhesion strength,
- Semi-elastic,
- Crack Bridging
- Resistant to frost and moisture
- Non corrosive, non-toxic.

DESCRIPTION

• Two component, cement based, semi-elastic, waterproofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

- Suitable for use in internal and external, vertical and horizontal waterproofing applications.
- Indoors; Wet spaces such as bathrooms, showers and kitchens,
- Outdoors; small garden pools and cisterns, etc.

PROPERTIES

Density : 1,55 kg/l (component A) / 1,0 kg/l (component B)
 Density (Mortar) : 1,80 kg/l (A+B)
 Color : Grey (component A) / white (component B)
 Chemical Structure
 Powder component (A) : High quality cement, additives providing flexibility and improved adhesion.
 Liquid component (B) : Synthetic resin based latex liquid.

TECHNICAL PERFORMANCE*

Temperature resistance : -30 °C - +70 °C
 Initial tensile adhesion strength : $\geq 0,5$ MPa
 Tensile strength after contact with water : $\geq 0,5$ MPa
 Tensile strength after heat aging : $\geq 0,5$ MPa
 Tensile strength after freeze-thaw : $\geq 0,5$ MPa
 Crack bridging under normal conditions : $\geq 0,75$ mm
 *These values were obtained as a result of laboratory experiments, after 28 days of finished applications. The values may change due to the differences in the jobsite.

REFERENCE STANDARDS AND APPROVALS

TS EN 14891

APPLICATION SURFACES

- Suitable for application on cement and gypsum based screeds and plasters, and concrete substrates in interior and exterior floors.

APPLICATION CONDITIONS AND LIMITS

- The mixture is rested for 3 minutes before starting the application and applied after mixing again.

APPLICATION PROPERTIES

Pot life : 1 hour
 Ambient temperature : +5 °C - +35 °C
 Application thickness : 2-3 mm
 Waiting time between layers : min. 6 hours
 (23 °C, 50% relative humidity)
 Set time : min. 6 hours
 (23 °C, 50% relative humidity)
 Application of ceramics time to wait : min 2 days.
 Mechanical strength : 2 days
 Full drying time : min 48 hours.
 Setting time for waterproofing : 7 days.

SURFACE PREPARATION

- The application surface should be clean and clear of any dirt, dust, grease or any contaminating barrier and weak particles.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Before starting the waterproofing application, **CERMFILM** primer should be applied to the surface in order to balance the absorbency of the surface and increase the adherence. Minimum 3 hours should be waited for the primer to dry.
- Impervious surfaces should be primed with **CERMFILM PLUS** before waterproofing.
- The surface temperature should be lowered by moistening with water sprinkling method before applying on the surfaces exposed to direct sunlight.
- **CERMIPROOF SF** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMFLOOR 4-30**.

MIXING

- Gradually add 20 kg of powder component A to 5 lt of liquid component B.

APPLICATION DETAILS

- The mixture is mixed until it becomes homogeneous.
- It is recommended to use a low cycled electrical drill mixer (400 rpm) for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.
- **CERMIPROOF SF** is applied over the surface using a stiff brush or a paint roller.
- It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be applied in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of waterproofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after waterproofing material has set.



PRECAUTIONS

- Mixing ratios of components A and B are indicated on the packaging, they should not be mixed at another rate.
- If the product hardens after opening the packages, the product should not be used.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- The working time of **CERMIPROOF SF** is shortened under unfavorable ambient conditions (high temperature, dry air and strong wind). In low temperature and high humidity conditions, time may be longer.
- **CERMIPROOF SF** is a waterproofing material developed for undercoating applications. It should not be left open, it must be covered with a suitable coating material.
- Water-proofed areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- In application, the surface should be fully bundled. Bundling is not complete and if there are interruptions and joints in insulation application, these details may cause water leakage.

- In order to increase the resistance on the surfaces that will be exposed to water pressure, waterproofing application can be done with reinforcement (alkali resistant reinforcement mesh, etc.). After the first coat is applied, the reinforcement is embedded in the first coat when it is still wet. After the first layer dries, the second layer is applied.
- The surface should not be exposed to direct sunlight after application.
- Please contact our technical service for different applications.

CONSUMPTION

- The approximate coverage amount may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Craft sack of 20 kg (component A) + plastic drum of 5 lt (component B)

STORAGE AND SHELL LIFE

- 12 Months in original, unopened packaging.
- Store in a dry area between +5 °C and +30 °C.
- Protect from direct sunlight and moisture.

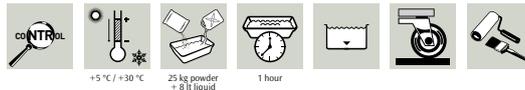
HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Two component, cement based, elastic, waterproofing material



- High adhesion strength,
- Elastic,
- Crack bridging,
- Resistant to frost and moisture ,
- Resistant to thermal shocks,
- Non corrosive, non-toxic.

DESCRIPTION

• Two component, cement based, elastic, waterproofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

- Suitable For use in internal and external, vertical and horizontal waterproofing applications,
- Indoors; Wet spaces such as bathrooms, showers, WCs and kitchens for private and public use,
- Outdoors; balcony, terrace, garden pools and cisterns, etc.
- Foundation and curtain concrete walls.

PROPERTIES

Density : 1,25 kg/l (component A) / 1,0 kg/l (component B)
 Density (Mortar) : 1,60 kg/l (A+B)
 Color : Grey (component A) / white (component B)
 Chemical Structure
 Powder component (A): High quality cement, additives providing flexibility and improved adhesion.
 Liquid component (B) : Synthetic resin based latex liquid.

TECHNICAL PERFORMANCE*

Resistance to thermal shocks : -30 °C - +70 °C
 Initial tensile adhesion strength : $\geq 0,5$ MPa
 Tensile adhesion strength after water contact : $\geq 0,5$ MPa
 Tensile adhesion strength after heat ageing : $\geq 0,5$ MPa
 Tensile adhesion strength after freeze-thaw cycles : $\geq 0,5$ MPa
 Crack bridging ability in standard conditions : $\geq 1,00$ mm

*These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. According to the differences in construction site, the values may change.

REFERENCE STANDARDS AND APPROVALS

- TS EN 14891

APPLICATION SURFACES

- Suitable for application on cement and gypsum based screeds and plasters, and concrete substrates in interior and exterior floors.

APPLICATION CONDITIONS AND LIMITS

- The mixture is rested for 3 minutes before starting the application and applied after mixing again.

APPLICATION PROPERTIES

Pot life : 1 hour
 Ambient temperature : +5 °C - +35 °C
 Application thickness : 2-3 mm
 Waiting time between layers : min. 6 hours
 (23 °C, 50% relative humidity)
 Set time : min. 6 hours
 (23 °C, 50% relative humidity)

Application of ceramics time to wait: min 2 days.

Mechanical strength : 2 days.
 Full drying time : min 48 hours.
 Setting time for waterproofing : 7 days.

SURFACE PREPARATION

- The application surface should be clean and clear of any dirt, dust, grease or any contaminating barrier and weak particles.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Before starting the waterproofing application, **CERMIFILM** primer should be applied to the surface in order to balance the absorbency of the surface and increase the adherence. Minimum 3 hours should be waited for the primer to dry..
- Impervious surfaces should be primed with **CERMIFILM PLUS** before waterproofing.
- The surface temperature should be lowered by moistening with water sprinkling method before applying on the surfaces exposed to direct sunlight.
- **CERMIPROOF FF** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMIFLOOR 4-30**.

MIXING

- Gradually add 25 kg of powder component A to 8 lt of liquid component B.

APPLICATION DETAILS

- The mixture is mixed until it becomes homogeneous.
- It is recommended to use a low cycled electrical drill mixer (400 rpm) for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.
- **CERMIPROOF FF** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm).
- It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be applied in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of waterproofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after waterproofing material has set.



PRECAUTIONS

- Mixing ratios of components A and B are indicated on the packaging, they should not be mixed at another rate.
- If the product hardens after opening the packages, the product should not be used.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- The working time of **CERMIPROOF FF** is shortened under unfavorable ambient conditions (high temperature, dry air and strong wind). In low temperature and high humidity conditions, time may be longer.
- **CERMIPROOF FF** is a waterproofing material developed for undercoating applications. It should not be left open, it must be covered with a suitable coating material.
- Water-proofed areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- In application, the surface should be fully bundled. Bundling is not complete and if there are interruptions and joints in insulation application, these details may cause water leakage.
- In order to increase the resistance on the surfaces that will be exposed to

water pressure, waterproofing application can be done with reinforcement (alkali resistant reinforcement mesh, etc.). After the first coat is applied, the reinforcement is embedded in the first coat when it is still wet. After the first layer dries, the second layer is applied.

- The surface should not be exposed to direct sunlight after application.
- Please contact our technical service for different applications.

CONSUMPTION

- The approximate coverage amount may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Craft sack of 25 kg (component A) + plastic drum of 8 lt (component B)

STORAGE AND SHELL LIFE

- 12 Months in original, unopened packaging.
- Store in a dry area between +5 °C and +30 °C.
- Protect from direct sunlight and moisture.

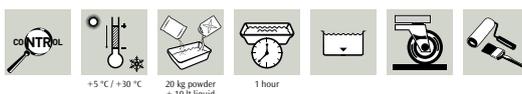
HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



*Two component, cement based,
full elastic, waterproofing material*



- High adhesion strength,
- Full elastic,
- Crack bridging,
- Resistant to frost and moisture ,
- Resistant to thermal shocks,
- Non corrosive, non-toxic,
- Certification for potable water tanks,
- Suitable for Olympic pools.

DESCRIPTION

• Two component, cement based, full elastic, waterproofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

- For use in vertical and horizontal applications.,
- Indoors; Wet spaces such as bathrooms, showers, WCs and kitchens for private and public use,
- Outdoors; balcony, large terrace, garden pools, olympic swimming pools, drinking water tanks and cisterns, etc.
- Foundation and curtain concrete walls.

PROPERTIES

Density : 1,40 kg/l (component A) / 1,0 kg/l (component B)
 Density (Mortar) : 1,75 kg/l (A+B)
 Color : Grey (component A) / white (component B)
 Chemical Structure
 Powder component (A): High quality cement, additives providing flexibility and improved adhesion.
 Liquid component (B) : Synthetic resin based latex liquid.

TECHNICAL PERFORMANCE*

Resistance to thermal shocks : -30 °C - +70 °C
 Initial tensile adhesion strength : 0,5 MPa
 Tensile adhesion strength after water contact : 0,5 MPa
 Tensile adhesion strength after heat ageing : 0,5 MPa
 Tensile adhesion strength after freeze-thaw cycles : 0,5 MPa
 Crack bridging ability in standard conditions : 1,25 mm

*These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. Values may vary due to differences in the jobsite.

REFERENCE STANDARDS AND APPROVALS

- TS EN 14891

APPLICATION SURFACES

- Suitable for application on cement and gypsum based screeds and plasters, and concrete substrates in interior and exterior floors.

APPLICATION CONDITION AND LIMITS

- The mixture is rested for 3 minutes before starting the application and applied after mixing again.

APPLICATION PROPERTIES

Pot life : 1 hour
 Ambient temperature : +5 °C - +35 °C
 Application thickness : 2-3 mm
 Waiting time between layers : min. 6 hours
 (23 °C, 50% relative humidity)
 Set time : min. 6 hours
 (23 °C, 50% relative humidity)
 Application of ceramics time to wait : min 2 days.
 Mechanical strength : 2 days
 Full drying time : min 48 hours.
 Setting time for waterproofing : 7 days.

SURFACE PREPARATION

- The application surface should be clean and clear of any dirt, dust, grease or any contaminating barrier and weak particles.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Before starting the waterproofing application, **CERMIFILM** primer should be applied to the surface in order to balance the absorbency of the surface and increase the adherence. Minimum 3 hours should be waited for the primer to dry.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before waterproofing.
- The surface temperature should be lowered by moistening with water sprinkling method before applying on the surfaces exposed to direct sunlight.
- **CERMIPROOF FF PLUS** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMIFLOOR 4-30**.

MIXING

- Gradually add 20 kg of powder component A to 10 lt of liquid component B.

APPLICATION DETAILS

- The mixture is mixed until it becomes homogeneous.
- It is recommended to use a low cycled electrical drill mixer (400 rpm) for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.
- **CERMIPROOF FF PLUS** is applied over the surface using a stiff brush or a paint roller.
- It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.



- 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be applied in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of waterproofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after waterproofing material has set.

PRECAUTIONS

- Mixing ratios of components A and B are indicated on the packaging, they should not be mixed at another rate.
- If the product hardens after opening the packages, the product should not be used.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- The working time of **CERMIPROOF FF PLUS** is shortened under unfavorable ambient conditions (high temperature, dry air and strong wind). In low temperature and high humidity conditions, time may be longer.
- **CERMIPROOF FF PLUS** is a waterproofing material developed for undercoating applications. It should not be left open, it must be covered with a suitable coating material.
- Water-proofed areas must be protected for at least 24 hours from direct sunlight, frost and rain.

- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- In application, the surface should be fully bundled. Bundling is not complete and if there are interruptions and joints in insulation application, these details may cause water leakage.
- In order to increase the resistance on the surfaces that will be exposed to water pressure, waterproofing application can be done with reinforcement (alkali resistant reinforcement mesh, etc.). After the first coat is applied, the reinforcement is embedded in the first coat when it is still wet. After the first layer dries, the second layer is applied.
- The surface should not be exposed to direct sunlight after application.
- Please contact our technical service for different applications.

CONSUMPTION

- The approximate coverage amount may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Craft sack of 20 kg (component A) + plastic drum of 10 lt (component B)

STORAGE AND SHELL LIFE

- 12 Months in original, unopened packaging.
- Store in a dry area between +5 °C and +30 °C.
- Protect from direct sunlight and moisture.

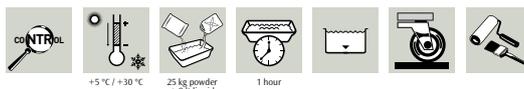
HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Two component, cement based, elastic, improved UV resistant waterproofing material



- High adhesion strength,
- Elastic,
- Crack Bridging,
- Resistant to frost and moisture ,
- Resistant to thermal shocks,
- Non corrosive, non-toxic,
- Improved UV Resistant.

DESCRIPTION

• Two component, cement based, elastic, improved UV resistant waterproofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

- For use in vertical and horizontal applications.
- Outdoors; balcony, terrace, garden pools and cisterns, etc.

PROPERTIES

Density : 1,25 kg/l (component A) / 1,0 kg/l (component B)
 Density (Mortar) : 1,60 kg/l (A+B)
 Color : White (component A) / white (component B)
 Chemical Structure
 Powder component (A): High quality cement, additives providing flexibility and improved adhesion.
 Liquid component (B) : Synthetic resin based latex liquid.

TECHNICAL PERFORMANCE*

Resistance to thermal shocks : -30 °C - +70 °C
 Initial tensile adhesion strength : $\geq 0,5$ MPa
 Tensile adhesion strength after water contact : $\geq 0,5$ MPa
 Tensile adhesion strength after heat ageing : $\geq 0,5$ MPa
 Tensile adhesion strength after freeze-thaw cycles : $\geq 0,5$ MPa
 Crack bridging ability in standard conditions : $\geq 1,00$ mm
 *These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. Values may vary due to differences in the jobsite.

REFERENCE STANDARDS AND APPROVALS

- TS EN 14891

APPLICATION SURFACES

- Suitable for application on cement and gypsum based screeds and plasters, and concrete substrates in interior and exterior floors.

APPLICATION CONDITIONS AND LIMITS

- The mixture is rested for 3 minutes before starting the application and applied after mixing again.

APPLICATION PROPERTIES

Pot life : 1 hour
 Ambient temperature : +5 °C - +35 °C
 Application thickness : 2-3 mm
 Waiting time between layers : min. 6 hours
 (23 °C, 50% relative humidity)
 Set time : min. 6 hours
 (23 °C, 50% relative humidity)
 Application of ceramics time to wait: min 2 days.
 Mechanical strength : 2 days

Full drying time : min 48 hours.
 Setting time for waterproofing : 7 days.

SURFACE PREPARATION

- The application surface should be clean and clear of any dirt, dust, grease or any contaminating barrier and weak particles.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Before starting the waterproofing application, **CERMIFILM** primer should be applied to the surface in order to balance the absorbency of the surface and increase the adherence. Minimum 3 hours should be waited for the primer to dry.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before waterproofing.
- The surface temperature should be lowered by moistening with water sprinkling method before applying on the surfaces exposed to direct sunlight.
- **CERMIPROOF UV** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMIFLOOR 4-30**.

MIXING

- Gradually add 25 kg of powder component A to 8 lt of liquid component B.

APPLICATION

- The mixture is mixed until it becomes homogeneous.
- It is recommended to use a low cycled electrical drill mixer (400 rpm) for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.
- **CERMIPROOF UV** is applied over the surface using a stiff brush or a paint roller.
- It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be applied in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of waterproofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after waterproofing material has set.



PRECAUTIONS

- Mixing ratios of components A and B are indicated on the packaging, they should not be mixed at another rate.
- If the product hardens after opening the packages, the product should not be used.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- The working time of **CERMIPROOF UV** is shortened under unfavorable ambient conditions (high temperature, dry air and strong wind). In low temperature and high humidity conditions, time may be longer.
- **CERMIPROOF UV** is a waterproofing material developed for undercoating applications. It should not be left open, it must be covered with a suitable coating material.
- Water-proofed areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- In application, the surface should be fully bundled. Bundling is not complete and if there are interruptions and joints in insulation application, these details may cause water leakage.
- In order to increase the resistance on the surfaces that will be exposed to water pressure, waterproofing application can be done with reinforcement (alkali resistant reinforcement mesh, etc.). After the first coat is applied, the reinforcement is embedded in the first coat when it is still wet. After the first layer dries, the second layer is applied.
- The surface should not be exposed to direct sunlight after application.
- Please contact our technical service for different applications.

CONSUMPTION

- The approximate coverage amount may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Craft sack of 25 kg (component A) + plastic drum of 8 lt (component B)

STORAGE AND SHELL LIFE

- 12 Months in original, unopened packaging.
- Store in a dry area between +5 °C and +30 °C.
- Protect from direct sunlight and moisture.

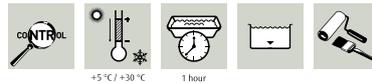
HEALTH AND SAFETY

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

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Cement based, crystallized waterproofing material



- Particularly suitable for waterproofing of wet areas on retaining wall,
- It is resistant for negative water pressure,
- Resistance to frost, moisture and thermal shocks.

DESCRIPTION

• Single component, cement based, crystallized waterproofing material. It is applied to provide water impermeability by penetrating into the concrete of cement based surfaces resistant against negative and positive water pressure.

AREAS OF USE

• It is used as an impermeability material on and in the foundations and curtain walls, terraces, sewer systems and waste water treatment facilities, swimming pools and water reservoirs, as well as wet area surfaces such as balconies, bathrooms, showers, toilets and kitchens, furthermore retaining walls against ground and soil humidity, infiltration water, positive and negative water pressure. It is used at the exterior and interior locations, and vertical and horizontal surfaces.

APPLICATION SURFACES

- Cement based plasters and screeds,
- Gross concrete etc.

APPLICATION PROPERTIES

- Application thickness : 2-3 mm.
- Available time of the mortar : 3-4 hours
- Period should be waited between the layers: 6-8 hours
- Period should be waited for applying of the top coat on the material : Min 7 days
- Period should be waited for soil embankment : Min. 7 days at positive pressure
Min. 14 days at negative pressure

WARNINGS AND ADVICES

- Foreign substances such as lime, cement, plaster etc. must not be added into the prepared mortar definitely.
- It should not be used again by adding water on the mortars, which their operating time and pot life expired.
- It cannot be applied on wooden surfaces, metal coating and surfaces exposed to humidity.
- It should not be applied on the frozen, melting or having frost hazard within 24 hours, surfaces.
- Application must not be made on the overheated surfaces, and at very sunny and blustery weathers, definitely.
- Attention should be paid to the materials for not leaving them under direct sunlight and the mixture should be made by using cold water.
- Application should not be made at rainy weathers and the application surface should be protected during 24 hours against rain.
- Expansion joints on the application surfaces should be covered by water insulation material, continuity of the insulation on these points should be provided by insulation bands.
- After application, the surface should be moistened during 5 days, in order to provide penetration of the product into the area.
- A protective coat application such as ceramic should be applied on the crystallized water insulation material of the surfaces, which can be exposed to mechanical impacts.
- Crystallized water insulation material should be denuded on the locations, which are open to circulation and it should be protected by screed, ceramic coating or industrial floor covering.
- The concrete surface should be poured at least 6 months in advance, in terms

of applications that will be made in the pools and water reservoirs.

- All tools that were used during application should be washed by water, without drying.

SURFACE PREPARATION

- Application surfaces should be clean, humid, and robust and purified from dust; as well as materials such as oil, dirt and anti-adhesive should be cleaned and removed from the surface.
- Materials such as mortar, cement residues, dust, lime and painting residues, and molding oils should be scoured from the application surface by brushing.
- Just before application, surfaces such as concrete, cement based plaster should be humidified carefully by clean water. It should be waited until the surface has absorbed the water and attention should be paid for humidity of the surface, it should be humidified not to be wet.
- Durableness and bearableness of the surfaces, where crystallized water insulation material will be used, should be controlled before application; and application should not be made on unsound surfaces. Important corrosions and decays on the surfaces should have been repaired by repair mortar minimum 24 hours in advance before application of crystallized water insulation material.

MIXING

- Gradually add 7,5-8 lt (30-32%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- Surface temperature minimum +5 °C, maximum + 30°C
- Environment temperature minimum +5 °C, maximum +30 °C

APPLICATION

- Crystallized water insulation mortar should be applied as two coats on the humidified surface. The second coat should be applied when the first coat dried completely and as it will be vertical to the first coat application.
- At least 6-8 hours should be waited between the coats.
- If the second application is realized after 12 hours from application of the previous coat, the surface should be humidified again before application.

CONSUMPTION

- 1,5 kg/m² per 2 mm thickness

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

COLOR

Grey



STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 5-30 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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Ready to use, elastic, acrylic dispersion based waterproofing material



- Particularly suitable for rapid waterproofing on damp and wet surfaces before tiling,
- No priming for tiling,
- Suitable on existing ceramic tiles, cement and gypsum based surfaces,
- Paintable.

DESCRIPTION

• Single component, ready to use, acrylic emulsion based waterproofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

• Suitable for use in internal, vertical and horizontal waterproofing applications. Ideal onto private and public wet areas (bathroom, shower, WC and etc.) and kitchens, balconies. Not suitable for wide terraces, pools and areas exposed to permanent water pressure.

FEATURES

Material content: Acrylic polymers, hydrophobic additives, mineral fillings and water.

Type : Liquid
Color : Green
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : ready to use.
Application temperature: +5 °C - +30 °C
Application thickness : 1,5-2 mm
Drying time (initial set) : minimum 30 minutes (23 °C, 50% relative humidity)
Set time : minimum 30 minutes (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Flexibility : excellent
Resistance to humidity : excellent
Resistance to thermal shocks : -30 °C - +70 °C
Resistance to aging with heat : excellent
Resistance to alkalies and acids : moderate

APPLICATION SURFACES

• Suitable for use on cement and gypsum based screeds and plasters, concrete substrates and existing tiles.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- The surfaces exposed to direct sunlight and have a surface temperature above +30 °C must be cooled by damping.
- **CERMICRYL** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **CERMIMORTAR 3-20** or **CERMIFLOOR 4-30**.

MIXING

- **CERMICRYL** is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out.
- Never add any additives (water, latex, etc.) into the ready-mixed liquid.

APPLICATION CONDITIONS

- The material should be applied at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **CERMICRYL** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,75 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application is recommended, ensuring a total thickness of 1,5-2 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 30 minutes). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of waterproofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 5 days later after waterproofing material has set.

PRECAUTIONS

- **CERMICRYL** is a waterproofing coating used in structures subject to only positive water pressure. It is not suitable for waterproofing against negative water pressure.
- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add any water or other component.
- Do not apply onto hydrophobic surfaces.
- **CERMICRYL** gains its waterproofing feature fully in 7 days after application.
- Do not apply directly onto the metal, plastic, PVC and aerated concrete surfaces. Please consult technical service for solutions.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before waterproofing.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Drying time for **CERMICRYL** will be shortened due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates. It may also extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- **CERMICRYL** is a waterproofing material to be applied prior to tiling. It should not be left open top, and must be covered with a suitable covering or coating material.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering



heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

- Coats of waterproofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have weak points possibly causing leakage.
- Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate waterproofing solutions.
- Water-proofed areas must be protected for at least 24 hours from direct sunlight, frost and rain.

SPECIAL CONDITIONS

- **CERMICRYL** is paintable after it sets

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface: For 1 mm thickness of coating 1,75 kg/m²

PACKAGING

- Plastic cans of 10 kg (48 cans / 480 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 5-30 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

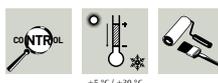
HEALTH AND SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

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Very fast setting, cementitious, water plug



- *Fast freezing against water leaks,*
- *Usage from interior and exterior surfaces,*
- *Easy and fast application.*

DESCRIPTION

Very fast setting, cementitious, chloride-free, water plug for running water.

FIELDS OF APPLICATION

- Curtain walls in the basements and foundations.
- Swimming pools and water tanks.
- Used for water proofing of active leakage.

MIXING

- When used as mortar, the mixture is approximately 0.3 liters of water for 1 kg of powder.
- The product should be mixed with a suitable amount of water in a clean container and mixed as quickly as possible.

REFERENCE STANDARDS AND APPROVALS

- TS EN 1504-3

APPLICATION CONDITIONS

- The material should be applied at an ambient temperature range of +5 °C / +30 °C.
- Do not apply on frozen surfaces.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Water running holes and cracks should be widened at a width of 2-3 cm.

As mortar;

- The product should be mixed with a suitable amount of water in a clean container and mixed as quickly as possible. Mixing ratio: Approximately 0.3 liters of water for 1 kg of powder.
- When the setting starts, the product should be applied in such a way that the gap is closed. Wait approximately 1 minute and smooth the surface with a trowel.

As powder;

- A fistful of powder of the product should be pressed on the leakage in one rapid step and Cermiplug must be pressed until the product sets and the leakage stops.
- After **CERMIPLUG** is hardened, with the surface leveling, the next step can proceed.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add more water to the mixture.
- Product applied areas must be protected for at least 24 hours from direct sunlight, frost and rain.
- Do not apply directly on the existing ceramic tiles, brick, metal, plastic, PVC, wooden, aerated concrete, precast concrete, underfloor heated and painted surfaces. Please consult our Technical Service for solutions.
- Do not apply on structural cracks and moving surfaces.
- Do not add other substances should in the mixture.

CONSUMPTION

- It may change depending on application surface.

PACKAGING

- 3 kg plastic cans.

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between +5 °C - +30 °C, shell life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

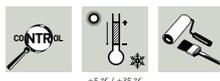


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CERMIPROOF PU



**One Component, Polyurethane Based,
Liquid, Waterproofing Material**



- Crack bridging.
- Easily applied (With roll or airless pistol).
- Seamless application
- Waterproofing performance in water puddles.
- Improved UV and frost resistance.
- Keeps physical properties -30 °C / +90 °C.
- Allows the surfaces to breathe with its water vapor permeability.
- Excellent adhesion
- High chemical resistance
- Does not contain toxic substances after curing.

DESCRIPTION

CERMIPROOF PU one component, ready to use, liquid, excellent adhesion to different surfaces by creating a very elastic and durable film with high mechanical and chemical resistance, tensile, tear and abrasion resistance, continuous elastic structure with shrinkage cracks bridging properties, reaction with air humidity curing, polyurethane based waterproofing material.

FIELDS OF APPLICATION

- Terrace, roof and rain gutters,
- Patio and balconies,
- Applied under ceramics tiles,
- Lightweight roofs made of fibrous materials and metal surfaces
- Bitumen, PVC, EPDM based membranes,
- Used with appropriate primers on concrete, wood and metal surfaces.

PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Color			White, grey
Viscosity (BROOKFIELD) (23 °C and 55% RH)	cP	ASTM D2196-86	2500-4000
Density (23 °C and 55% RH)	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811,	1.40±0,05

TECHNICAL PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Flash Point	°C	Open cap	>40
Walkable on Time (23 °C and 55% RH)	hour	-	8-12
Recoat Time (23 °C and 55% RH)	hour	-	8-12
Hardness (7 days)	Shore A	ASTM D2240 / DIN 53505 / ISO R868	60-65
Tensile Strength (23 °C and 55% RH) (7 days)	N/mm ²	ASTM D412	>5
Elongation at Break (23 °C and 55% RH)	%	ASTM D412	>600
Adhesion to Concrete	N/mm ²	ASTM D4541	> 2
Crack Bridging			2 mm

APPLICATION

Surface Preparation

The application surfaces should be dry and clean. Cementitious residues can be removed mechanically; oil, grease, fuel and paraffin residues can be cleaned with chemical solvents. Damaged coatings, unlevelled surfaces and cracks should be repaired with suitable products. After repairing, the surface can be primed with EP or PU based primers depending on the need; then the application of **CERMIPROOF PU** should be started.

Concrete substrate conditions (standard):

Hardness: R28 = 15MPa.

Temperature: 5-35 °C.

Relative humidity: <85%.

Mixing

Ready to use product, however mixing before use is recommended to get homogenous consistency. Mix with a suitable mixer at a speed of 300 RPM for 2-3 minutes.

Primer Application

Many absorbent surfaces such as concrete, cement screed or wood should be filled with a suitable (EP, PU etc.) primer before the application, without creating a film.

Application

- **CERMIPROOF PU** is applied in 2 coats with thin comb trowel, airless spraying machines or brush or roller.
- Do not wait more than 24 hours between coats.
- In case of exceeding 24 hours, the application surface must be treated with sandpaper.
- When applied by spraying method, the material should be applied after being diluted with a polyurethane thinner.
- The packages which are kept at room temperature for 24 hours, should be opened and mixed until homogenous consistency is reached. Mixing should be done with a low speed mixer and appropriate mixer tip.
- **CERMIPROOF PU** offers practical application in ready-to-use packaging, which can be applied without thinning.
- Consumption control by making homogeneous spread, can be achieved with thin comb trowel, short hair roller brush or appropriate sprayer (airless spray machine) with the help of primed surfaces.
- The coats must be protected against water and rain, external influences and mechanical stress until it is dry.
- It is recommended to wait between 8-12 hours, when applying the second layer. The waiting time may change due to external conditions.
- Full mechanical and chemical strength will occur in 7 days .

Cleaning of Tools

Clean the tools and equipments with warm soapy water after the application. Once **CERMIPROOF PU** is cured, it can only be mechanically removed from the surface by using a suitable solvent.



PRECAUTIONS

- **CERMIPROOF PU** should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated.
- Do not apply **CERMIPROOF PU** if the ambient and substrate temperature is less than 5 °C or more than 35 °C.
- Application must be protected from direct sun-light, wind, frost, rain or water until it is dry.
- **CERMIPROOF PU** should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated.
- In cold weather, packagings must be stored at a minimum temperature of +15 °C for at least 24 hours prior to application.
- Water vapor pressure should not be observed on the negative side. In such a case, special waterproofing must be applied before application.

CONSUMPTION

First layer: 0,600-0,800 kg/m²,
Second layer: 0,600-0,900 kg/m² total 1,2-1,5 kg/m² (min.)

PACKAGING

25 kg and 5 kg buckets

STORAGE & SHELF LIFE

- Store in cool and dry conditions protected from frost.
- In short-term storage, maximum 2 palletes can be stored on top of each other and delivery must be done according to first in first out system.
- In long-term storage, do not store palletes on top of each other.
- 12 months after the production date under appropriate storing conditions, and ambient temperature between +15 °C / + 25 °C.

HEALTH AND SAFETY PRECAUTIONS

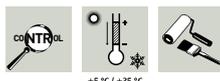
- Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application.
- Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application.
- If such a contact occurs, skin and eyes must be washed by soap and plenty of water.
- Consult a physician urgently if swallowed.
- Food and drink must be kept outside the application areas.
- Must be stored away from children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMIPROOF PU 2C



**Two Component, Polyurethane Based,
Liquid, Waterproofing Material**



- Solvent free,
- Elastic,
- Resistance to temperature variations (-30°C/+120°C),
- Self levelling,
- Easily applied (With roll or airless pistol),
- Excellent adhesion,
- High chemical resistance (solvents, oils, sea water, thinned acids and sulfates),
- Does not contain toxic substances after curing.

DESCRIPTION

CERMIPROOF PU 2C, two component, solvent free, hard elastic, UV resistant, cold applied and cold curing polyurethane liquid waterproofing material. **CERMIPROOF PU 2C** can be used on light pedestrian and be applied under concrete, cement floor or tiles.

FIELDS OF APPLICATION

- Terrace roofs,
- Patio and balconies,
- Submerged wet areas,
- Basic curtain walls,
- In contact with fuels,
- Underground water structures.

PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
View A Component: Waterstop B Component: Hardener	-	-	ASTM D1475 / DIN 53217 / ISO 2811
Mixing ratio A Component: Waterstop B Component: Hardener			5:1
Mixture Density (23 °C ve 55% RH)	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811	1.40 ±0.05

TECHNICAL PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Application time	minutes	-	55-60
Walking time on	hours	-	8-12
Solid matter ratio	%	-	~90
Serve temperature	°C	-	+5 °C/+30 °C
Shore A hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	40
Tensile strength	N/mm ²	ASTM D412	>2
Elongation at break	%	ASTM D412	>400

APPLICATION

Surface Preparation

The application surfaces should be dry and clean. Cementitious residues can be removed mechanically; oil, grease, fuel and paraffin residues can be cleaned with chemical solvents. Damaged coatings, unlevelled surfaces and cracks should be repaired with suitable products.

Concrete substrate conditions (standard):

Hardness: R28 = 15MPa.

Temperature: 5-35 °C.

Relative humidity: <85%.

Mixing

The mixing time of the two components should be taken into account and prepared at the specified mixing rate until the amount to be consumed. In order to obtain a homogeneous mixture, the product temperature should not be less than 15 °C. The A component should be stirred quickly with a mechanical mixer, adding the hardener (component B) to the mixing ratio. Components A and B should be mixed with a mechanical mixer for at least 3 minutes until homogenous. The mixture of the material should be made with a special mixing device and tip which does not exceed 300-400 d/d and it should not be mixed with high speed drill.

Primer Application

Many absorbent surfaces such as concrete, cement screed or wood should be filled with PU lining before the primer application, without creating a film. After repairing, the surface can be primed with PU based primers depending on the need; then the application of **CERMIPROOF PU 2C** should be started.

Application

• **CERMIPROOF PU 2C** is applied on the floor by brush or roller. Air bubbles should be taken with a hedgehog roller within 10 minutes.

• The packages kept at room temperature for 24 hours are opened and mixed until homogenous consistency. Mixing should be done with low speed mixer and appropriate mixer tip.

• **CERMIPROOF PU 2C**, offers practical application in ready-to-use packaging, which can be applied without thinning.

• The layer must be protected against water and rain, external influences and mechanical stress until it is dry.

• Wait approximately 24-36 hours between the applications of two layers. The waiting time of the layers in hot weather may be shortened and may be extended in cold weather.

Cleaning of Tools

The cleaning of the tools is done with Polyurethane Thinner.



PRECAUTIONS

- The surface temperature should be +5 °C.
- In cold weather, packagings must be stored at a minimum temperature of +15 °C for at least 24 hours prior to application.
- Water vapor pressure should not be observed on the negative side. In such a case, special insulation must be applied before application.
- After the application, the surface must be protected against water, rain, dew, snow, hail etc. until it is dry.
- When opened packages are tightly closed, the inside of the product will freeze quickly so that the opened cans will be consumed.
- Full mechanical and chemical strength will occur in 7 days should be considered.

CONSUMPTION

First layer: 1.4 kg/m², for 1mm thickness.

PACKAGING

10+2 kg

STORAGE & SHELF LIFE

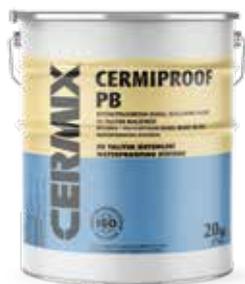
- Store in cool and dry conditions protected from frost.
- In short-term storage, maximum 2 palettes can be stored on top of each other and delivery must be done according to first in first out system.
- In long-term storage, do not store palettes on top of each other.
- 12 months after the production date under appropriate storing conditions, and ambient temperature between +15 °C / + 25 °C, protected from moisture, water and sunlight.

HEALTH AND SAFETY PRECAUTIONS

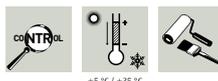
- Do not approach with open flame and do not smoke during application.
- Wear gloves, goggles and protective clothing.
- In case of contact with skin, wash with soap and water.
- Do not swallow, do not use empty packages for food storage and do not dispose of in a fire.
- For professional use only, keep out of reach of children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMIPROOF PB



**One Component,
Bitumen / Polyurethane Liquid,
Waterproofing Material**



- Crack bridging,
- Easily applied (Roll, trowel, brush or airless spray),
- Seamless application,
- Waterproofing performance in water puddles,
- Improved frost resistance,
- Keeps physical properties -30 °C / +90 °C,
- Excellent adhesion,
- Chemical resistance,
- Does not contain toxic substances after curing.

DESCRIPTION

CERMIPROOF PB, ready to use, liquid, excellent adhesion to different surfaces by creating a very elastic and durable film with high mechanical and chemical resistance, tensile, tear and abrasion resistance, continuous elastic structure with shrinkage cracks bridging properties, reaction with air humidity curing, polyurethane based waterproofing material. It is based on pure elastomeric hydrophobic polyurethane resin and is extended with chemically polymerised bitumen.

FIELDS OF APPLICATION

- Terrace, roof and rain gutters,
- Patio and balconies,
- Applied under ceramics tiles,
- Lightweight roofs made of fibrous materials and metal surfaces,
- Bitumen, PVC, EPDM based membranes,
- Used with appropriate primers on concrete, wood and metal surfaces.

PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Color			Black
Viscosity (BROOKFIELD) (23 °C and 55% RH)	cP	ASTM D2196-86 / TS 5833 EN ISO 3219	3.000 - 6.000
Density (23 °C and 55% RH)	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811	1,30±0,05

TECHNICAL PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Flash Point	°C	ASTM D93, closed container	42
Time To Be Able To Walk On (23 °C and 55% RH)	hour	-	16-24
Full cure	day		5
Recoat time	hour	-	12-24
Hardness (7 day)	Shore A	ASTM D2240 / DIN 53505 / ISO 868	35
Tensile strength (23 °C and 55% RH) (7 day)	N/mm ²	ASTM D412	>2,0
%Elongation (23 °C and 55% RH)	%	ASTM D412 / EN-ISO-527-3	>500
Pot Life (23 °C and 55% RH)	min		30
Adhesion to concrete	N/mm ²	ASTM D93, closed container	>2,0

APPLICATION

Surface Preparation

The application surfaces should be dry and clean. Cementitious residues can be removed mechanically; oil, grease, fuel and paraffin residues can be cleaned with chemical solvents. Damaged coatings, unlevelled surfaces and cracks should be repaired with suitable products. After repairing, the surface can be primed with PU based primers depending on the need; then the application of **CERMIPROOF PB** should be started.

Concrete substrate conditions (standard):

Hardness: R28 = 15MPa.

Temperature: 5-35 °C.

Relative humidity: <85%.

Mixing

CERMIPROOF PB mixed a mechanical mixer for at least 3 minutes until a homogenous mixture is obtained. The speed of the mixing device (with tip) should not exceed 300 - 400 D/D and a high speed drill should be avoided.

Primer Application

Many absorbent surfaces such as concrete, cement screed or wood should be filled with a PU primer before the application, without creating a film.

Application

- **CERMIPROOF PB** is applied in 2 coats with thin comb trowel, airless spraying machines or brush or roller.
- Do not wait more than 24 hours between coats.
- In case of exceeding 24 hours, the application surface must be treated with sandpaper.
- When applied by spraying method, the material should be applied after being diluted with a polyurethane thinner.
- The packages which are kept at room temperature for 24 hours, should be opened and mixed until homogenous consistency is reached. Mixing should be done with a low speed mixer and appropriate mixer tip.
- Consumption control by making homogeneous spread, can be achieved with thin comb trowel, short hair roller brush or appropriate sprayer (airless spray machine) with the help of primed surfaces.
- The coats must be protected against water and rain, external influences and mechanical stress until it is dry.
- It is recommended to wait between 12-24 hours, when applying the second layer. The waiting time may change due to external conditions.
- Full mechanical and chemical strength will occur in 5 days.

Cleaning of Tools

Clean the tools and equipments with PU based thinner after the application.



PRECAUTIONS

- **CERMIPROOF PB** should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated.
- Do not apply **CERMIPROOF PB** if the ambient and substrate temperature is less than 5 °C or more than 35 °C.
- Application must be protected from direct sun-light, wind, frost, rain or water until it is dry.
- It should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated.
- In cold weather, packagings must be stored at a minimum temperature of +15 °C for at least 24 hours prior to application.
- Water vapor pressure should not be observed on the negative side. In such a case, special insulation must be applied before application.

CONSUMPTION

1,500-2,000 kg/m²

Consumption may vary depending on surface roughness, ambient and surface temperature and application method.

PACKAGING

20 kg

STORAGE & SHELF LIFE

- Store in cool and dry conditions protected from frost.
- In short-term storage, maximum 2 palettes can be stored on top of each other and delivery must be according to first in first out system.
- In long-term storage, do not store palettes on top of each other.
- 12 months after the production date under appropriate storing conditions, and ambient temperature between +15 °C / + 25 °C.

HEALTH AND SAFETY PRECAUTIONS

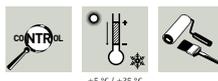
- Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application.
- Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application.
- If such a contact occurs, skin and eyes must be washed by soap and plenty of water.
- Consult a physician urgently if swallowed.
- Food and drink must be kept outside the application areas.
- Must be stored away from children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMIPROOF PB 2C



**Two Component,
Bitumen / Polyurethane Liquid,
Waterproofing Material**



- Crack bridging.
- Easily applied (Roll, trowel, brush or airless spray).
- Seamless application.
- Waterproofing performance in water puddles.
- Improved frost resistance.
- Keeps physical properties -30 °C / +90 °C.
- Excellent adhesion.
- Chemical resistance.
- Does not contain toxic substances after curing.

DESCRIPTION

CERMIPROOF PB 2C two component, ready to use, liquid, excellent adhesion to different surfaces by creating a very elastic and durable film with high mechanical and chemical resistance, tensile, tear and abrasion resistance, continuous elastic structure with shrinkage cracks bridging properties, reaction with air humidity curing, polyurethane based waterproofing material. It is based on pure elastomeric hydrophobic polyurethane resin and is extended with chemically polymerised bitumen.

FIELDS OF APPLICATION

- Terrace, roof and rain gutters,
- Patio and balconies,
- Applied under ceramics tiles,
- Lightweight roofs made of fibrous materials and metal surfaces
- Bitumen, PVC, EPDM based membranes,
- Used with appropriate primers on concrete, wood and metal surfaces.

PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Color			Black
Viscosity (BROOKFIELD) (23 °C and 55% RH)	cP	ASTM D2196-86 / TS 5833 EN ISO 3219	A+B 4.000 - 5.000
Density (23 °C and 55% RH)	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811	0,98±0,05

TECHNICAL PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Flash Point	°C	ASTM D93, closed container	42
Time To Be Able To Walk On (23 °C and 55% RH)	hour	-	16-24
Full cure	day		5
Recoat time	hour	-	12-24
Hardness (7 day)	Shore A	ASTM D2240 / DIN 53505 / ISO 868	35
Tensile strength (23 °C and 55% RH) (7 day)	N/mm ²	ASTM D412	>3,0
%Elongation (23 °C and 55% RH)	%	ASTM D412 / EN-ISO-527-3	>2.000
Pot Life (23 °C and 55% RH)	min		30

APPLICATION

Surface Preparation

The application surfaces should be dry and clean. Cementitious residues can be removed mechanically; oil, grease, fuel and paraffin residues can be cleaned with chemical solvents. Damaged coatings, unlevelled surfaces and cracks should be repaired with suitable products. After repairing, the surface can be primed with PU based primers depending on the need; then the application of **CERMIPROOF PB 2C** should be started.

Concrete substrate conditions (standard):

Hardness: R28 = 15MPa.

Temperature: 5-35 °C.

Relative humidity: <85%.

Mixing

Mix the two components at the specified , the amounts. The prepared mixture should completely be used. In order to obtain a homogeneous mixture, the product temperature should not be less than 15 °C. The A component should be stirred quickly with a mechanical mixer, adding the hardener (component B) to the mixing ratio. Components A and B should be mixed with a mechanical mixer for at least 3 minutes until a homogenous mixture is obtained. The speed of the mixing device (with tip) should not exceed 300 - 400 D/D and a high speed drill should be avoided.

Primer Application

Many absorbent surfaces such as concrete, cement screed or wood should be filled with a PU primer before the application, without creating a film.

Application

• **CERMIPROOF PB 2C** is applied in 2 coats with thin comb trowel, airless spraying machines or brush or roller.

• Do not wait more than 24 hours between coats.

• In case of exceeding 24 hours, the application surface must be treated with sandpaper.

• When applied by spraying method, the material should be applied after being diluted with a polyurethane thinner.

• The packages which are kept at room temperature for 24 hours, should be opened and mixed until homogenous consistency is reached. Mixing should be done with a low speed mixer and appropriate mixer tip.

• Consumption control by making homogeneous spread, can be achieved with thin comb trowel, short hair roller brush or appropriate sprayer (airless spray machine) with the help of primed surfaces,.

• The coats must be protected against water and rain, external influences and mechanical stress until it is dry.

• It is recommended to wait between 12-24 hours, when applying the second layer. The waiting time may change due to external conditions.

• Full mechanical and chemical strength will occur in 5 days .

Cleaning of Tools

Clean the tools and equipments with warm soapy water after the application. Once **CERMIPROOF PB 2C** is cured, it can only be mechanically removed from the surface by using a suitable solvent.



PRECAUTIONS

- **CERMIPROOF PB 2C** should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated.
- Do not apply **CERMIPROOF PB 2C** if the ambient and substrate temperature is less than 5 °C or more than 35 °C.
- Application must be protected from direct sun-light, wind, frost, rain or water until it is dry.
- It should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated.
- In cold weather, packagings must be stored at a minimum temperature of +15 °C for at least 24 hours prior to application.
- Water vapor pressure should not be observed on the negative side. In such a case, special insulation must be applied before application.

CONSUMPTION

1,500-2,000 kg/m²
Consumption may vary depending on surface roughness, ambient and surface temperature and application method.

PACKAGING

17+17 kg

STORAGE & SHELF LIFE

- Store in cool and dry conditions protected from frost.
- In short-term storage, maximum 2 pallets can be stored on top of each other and delivery must be according to first in first out system.
- In long-term storage, do not store pallets on top of each other.
- 12 months after the production date under appropriate storing conditions, and ambient temperature between +15 °C / + 25 °C.

HEALTH AND SAFETY PRECAUTIONS

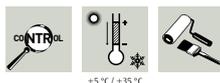
- Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application.
- Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application.
- If such a contact occurs, skin and eyes must be washed by soap and plenty of water.
- Consult a physician urgently if swallowed.
- Food and drink must be kept outside the application areas.
- Must be stored away from children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMIPROOF BITUM



One Component, Polymer Modified Bitumen Rubber, Waterproofing Material



- Easy to apply.
- Provides seamless waterproofing.
- Complete adhesion to the surface.
- Crack bridging.
- Suitable for horizontal and vertical applications. Thixotropic.
- Extended pot life.
- Resistant to freeze thaw cycle.
- Resistant to bacterial attacks, salts and acids in the soil.

DESCRIPTION

CERMIPROOF BITUM is a rubber modified bitumen emulsion based, one component, paste consistent, highly durable, ready to use, thick waterproofing material.

FIELDS OF APPLICATION

- Foundations and curtain walls (Tanking).
- Waterproofing of retaining walls.
- Vertical and horizontal applications.
- Positive waterproofing applications.
- Bonding of insulation boards (Perimeter insulation).
- Suitable for bonding of insulation and drainage boards.
- Basement and warehouse insulation.
- External insulation of water tanks.
- Waterproofing of flowerpots.

PROPERTIES

Chemical Structure	: Polymer modified bitumen
Color	: Brown to black.
Density	: 1,20 kg/l
Solid Content	: ≥70 %
Application Temperature:	+5 °C - +35 °C
Service Temperature	: -20 °C - +80 °C
Curing	: 3 hr
Drying	: 2-5 days
Elongation at Break	: ≥300%

PERFORMANCE

TEST	STANDART	CRITERION	RESULT
Watertightness	EN 15820	Period: 24 hr Water Pressure: 0,075 Bar Dry film thickness ≥3 mm (Without glass fiber mesh)	W1
Crack Bridging Ability	EN 15812	Crack: ≥2 mm	CB2
Flexibility at Low Temperature	EN 15813	Period: 1 hr Temp.: 0 °C	Pass
Dimensional stability at high temp.	EN 15818	Period: 1 hr Temp.: 70 °C	Pass
Water Resistance	EN 15817	28 days in water	Pass
Rain Resistance	EN 15816	24 hr	R1
Thickness when fully dried	EN 15819	≤50%	Pass
Reaction to fire	EN 13501-1	Euroclass	E

APPLICATION

Surface Preparation

Application substrate must be dry, sound, mainly smooth, clean and fine pored, free from honey combs, voids, cracks, ridges, dust, tar, pitch forming oil, old paint and other bond breaking residues. Wooden or iron wedges must be removed from the surface and active water leakages must be prevented. Voids and hollows must be filled. On vertical and horizontal corners fillet with min. 4 cm radius must be applied. Priming the substrate with diluted **CERMIPROOF BITUM** mixture is highly recommended.

Mixing

Ready to use product, however mixing before use is recommended to get homogenous consistency.

Primer Application

Mix the material as described. Take enough amount of material and dilute 1:3 or 1:5 of water depending on the substrate absorbency. Mix with 400-600 rpm electric drill until lump free, homogenous consistency obtained. Apply equally on the substrate with a brush and do not allow accumulation on horizontal surfaces. Wait until the primer sufficiently cured before the first coat application.

Protection of the Coating

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. The product must be applied on the prepared surface as 2 coats by brush, trowel or spray. The second coat must be applied after the first coat is fully dry. **CERMIPROOF BITUM** must be protected from damages during the backfilling with a suitable drainage or heat insulation boards. Sharp stones, rubbles and etc. are not suitable for backfilling. **CERMIPROOF BITUM** is not UV resistant, it should be covered properly after application.

Cleaning of Tools

Clean the tools and equipments with warm soapy water after the application. Once **CERMIPROOF BITUM** is cured, it can only be mechanically removed from the surface by using a suitable solvent.

PRECAUTIONS

- Do not apply **CERMIPROOF BITUM** if the ambient and substrate temperature is less than 5 °C or more than 35 °C.
- Do not apply **CERMIPROOF BITUM** under the rain or prediction of rainy weather.
- Application must be protected from direct sun-light, wind, frost or rain in 24 hours.
- Working times of cement and bitumen emulsion based systems are affected from environmental and surface temperatures, and relative humidity in the air. In low temperatures the reaction slows down, and this increases working period and working time. High temperatures accelerate the reaction and the periods stated above decrease depending on this. In order to complete the curing of material, environmental and surface temperatures must not decrease below the minimum allowed temperature.
- Areas that are not fully cured must not be exposed to water.
- Coating has to be applied on the surfaces of structure or structure parts that contact with water.



- **CERMIPROOF BITUM** must be used within 1 hour after mixing.
- Do not apply **CERMIPROOF BITUM** inside the potable water tanks and swimming pools.

CONSUMPTION

1.5 kg/m² should be applied to obtain 1 mm dry film thickness.

Application Surfaces	DRY Film (mm)	Consumption (kg)
Areas exposed to ground moisture	3 mm	4,5-5 kg/m ²
Waterproofing for temporary and high pressured water leakages	3 mm	4,5-5 kg/m ²
Areas subject to continuous pressure water	4 mm	6 kg/m ²

PACKAGING

30 kg

STORAGE & SHELF LIFE

- Store in cool and dry conditions protected from frost. In short-term storage, maximum 2 palettes can be stored on top of each other and delivery must be according to first in first out system. In long-term storage, do not store palettes on top of each other.
 - 12 months after the production date under appropriate storing conditions.
- CERMIPROOF BITUM** may freeze under 0 °C. Tightly seal the cover of the opened pails and do not store more than one week.

HEALTH AND SAFETY PRECAUTIONS

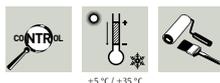
- Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application.
- Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application.
- If such a contact occurs, skin and eyes must be washed by soap and plenty of water.
- Consult a physician urgently if swallowed.
- Food and drink must be kept outside the application areas.
- Must be stored away from children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMIPROOF BITUM 2C



Two Component, Polymer Modified Bitumen Rubber, Fiber Reinforced, Waterproofing Material



- Suitable for horizontal and vertical applications.
- Bridges shrinkage cracks with its elastic behavior.
- Easy to prepare and use.
- Longer pot life for extended workability.
- Resistant to freeze thaw cycle.
- Resistant to bacterial attacks, salts and acids in the soil.
- Easy to apply with brush.
- Fiber Reinforced.

DESCRIPTION

CERMIPROOF BITUM 2C is cement and modified bitumen emulsion based, fiber reinforced, two component, pasty consistency, high durability waterproofing material. It can be easily applied by brush, trowel or spray machine and provides a permanent flexible waterproofing.

FIELDS OF APPLICATION

- Foundation and curtain walls
- Wet spaces, retaining walls
- Horizontal and vertical surfaces,
- Protection and insulation of structural and structural elements exposed to leaking water, temporary or continuous water pressure
- External isolation of water tanks,
- Basement and warehouse insulation,
- It can be applied for gluing of insulation and drainage plates.

PROPERTIES

A Component	: Polymer modified bitumen
B Component	: Cement based powder
Colour	: Brown to black.
Density (A / A+B)	: 1,02/1,13 kg/l
Solid Content (A / A+B)	: 55% / 66%
Application Temperature:	: +5 °C - +35 °C
Service Temperature	: -20 °C - +80 °C
Mixing Ratio (A/B)	: 22+8 kg
Curing	: 3 hr
Pot Life	: 2 hr
Drying	: 2-5 days

PERFORMANCE

TEST	STANDART	CRITERION	RESULT
Watertightness	EN 15820	Period: 24 hr Water Pressure: 0,075 Bar Dry film thickness ≥3 mm (Without glass fiber mesh)	W1
Crack Bridging Ability	EN 15812	Crack: ≥2 mm	CB2
Flexibility at Low Temperature	EN 15813	Period: 1 hr Temp.: 0 °C	Pass
Dimensional stability at high temp.	EN 15818	Period: 1 hr Temp.: 70 °C	Pass
Water Resistance	EN 15817	28 days in water	Pass
Rain Resistance	EN 15816	8 hr	R2
Thickness when fully dried	EN 15819	≤ %50	Pass
Reaction to fire	EN 13501-1	Euroclass	E

APPLICATION

Surface Preparation

Application substrate must be dry, sound, mainly smooth, clean and fine pored, free from honey combs, voids, cracks, ridges, dust, tar, pitch forming oil, old paint and other bond breaking residues. Wooden or iron wedges must be removed from the surface and active water leakages must be prevented. Voids and hollows must be filled. On vertical and horizontal corners fillet with min. 4 cm radius must be applied. Priming the substrate with diluted **CERMIPROOF BITUM 2C** mixture is highly recommended.

Mixing

Add part B slowly into part A (in the pail) while mixing with 400-600 rpm electric drill. Mix at least 3-5 minutes until homogenous, lump free, pasty consistency obtained. Wait for 3-5 minutes and mix again about 30 seconds to make ready for application. Mix as much material as can be applied within the pot life. Mixed product can be consumed within 1-2 hours.

Primer Application

Mix the material as described. Take enough amount of material and dilute 1:3 or 1:5 of water depending on the substrate absorbency. Mix with 400-600 rpm electric drill until lump free, homogenous consistency obtained. Apply equally on the substrate with a brush and do not allow accumulation on horizontal surfaces. Wait until the primer sufficiently cured before the first coat application. Apply **CERMIPROOF BITUM 2C** with brush or spray equipment with the consumption mentioned on the coverage table.

Protection of the Coating

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. The product must be applied on the prepared surface as 2 coats by brush, trowel or spray. The second coat must be applied after the first coat is fully dry. **CERMIPROOF BITUM 2C** must be protected from damages during the backfilling with a suitable drainage or heat insulation boards. Sharp stones, rubbles and etc. are not suitable for backfilling. **CERMIPROOF BITUM 2C** is not UV resistant, it should be covered properly after application.

Cleaning of Tools

Clean the tools and equipments with warm soapy water after the application. Once **CERMIPROOF BITUM 2C** is cured, it can only be mechanically removed from the surface by using a suitable solvent.

PRECAUTIONS

- Do not apply **CERMIPROOF BITUM 2C** if the ambient and substrate temperature is less than 5 °C or more than 35 °C.
- Do not apply **CERMIPROOF BITUM 2C** under the rain or prediction of rainy weather.
- Application must be protected from direct sun-light, wind, frost or rain in 24 hours.
- Working times of cement and bitumen emulsion based systems are affected from environmental and surface temperatures, and relative humidity in the air. In low temperatures the reaction slows down, and this increases working period and working time. High temperatures accelerate the reaction and the periods stated above decrease depending on this. In order to complete the curing of material, environmental and surface temperatures must not decrease below the minimum allowed temperature.



- Areas that are not fully cured must not be exposed to water.
- Coating has to be applied on the surfaces of structure or structure parts that contact with water.
- **CERMIPROOF BITUM 2C** must be used within 1 hour after mixing.
- Do not **CERMIPROOF BITUM 2C** inside the potable water tanks and swimming pools.

CONSUMPTION

1.5 kg/m² should be applied to obtain 1 mm dry film thickness.

Application Surfaces	DRY Film (mm)	Consumption (kg)
Areas exposed to ground moisture	3 mm	4,5 kg/m ²
Waterproofing for temporary and high pressured water leakages	3 mm	4,5 kg/m ²
Areas subject to continuous pressure water	4 mm	6 kg/m ²

PACKAGING

22+8 kg Set with plastic bucket.

STORAGE & SHELF LIFE

- Store in cool and dry conditions protected from frost. In short-term storage, maximum 2 palletes can be stored on top of each other and delivery must be according to first in first out system. In long-term storage, do not store palletes on top of each other.
 - 12 months after the production date under appropriate storing conditions.
- CERMIPROOF BITUM 2C** may freeze under 0 °C. Tightly seal the cover of the opened pails and do not store more than one week.

HEALTH AND SAFETY PRECAUTIONS

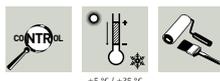
- Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application.
- Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application.
- If such a contact occurs, skin and eyes must be washed by soap and plenty of water.
- Consult a physician urgently if swallowed.
- Food and drink must be kept outside the application areas.
- Must be stored away from children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMIPROOF BITUM PLUS 2C



Two Component, Polymer Modified Bitumen Rubber, Waterproofing Material



- Suitable for horizontal and vertical applications.
- Bridges shrinkage cracks with its elastic behavior.
- Easy to prepare and use.
- Longer pot life for extended workability.
- Resistant to freeze thaw cycle.
- Resistant to bacterial attacks, salts and acids in the soil.
- Easy to apply with brush.

DESCRIPTION

CERMIPROOF BITUM PLUS 2C is cement and modified bitumen emulsion based, two component, pasty consistency, high durability waterproofing material. It can be easily applied by brush, trowel or spray machine and provides a permanent flexible waterproofing.

FIELDS OF APPLICATION

- Foundation and curtain walls,
- Wet spaces, retaining walls,
- Horizontal and vertical surfaces,
- Protection and insulation of structural and structural elements exposed to leaking water, temporary or continuous water pressure,
- External isolation of water tanks,
- Basement and warehouse insulation,
- It can be applied for gluing of insulation and drainage plates.

PROPERTIES

A Component	: Polymer modified bitumen
B Component	: Cement based powder
Colour	: Brown to black.
Density (A / A+B)	: 1,07/1,15 kg/l
Solid Content (A / A+B)	: 62% / 72%
Application Temperature	: +5 °C - +35 °C
Service Temperature	: -20 °C - +80 °C
Mixing Ratio (A/B)	: 22+8 kg
Curing	: 3 hr
Pot Life	: 2 hr
Drying	: 2-5 days

PERFORMANCE

TEST	STANDART	CRITERION	RESULT
Watertightness	EN 15820	Period: 72 hr Water Pressure: 0,75 Bar Dry film thickness ≥4 mm (Without glass fiber mesh)	W2B
Crack Bridging Ability	EN 15812	Crack: ≥2mm	CB2
Flexibility at Low Temperature	EN 15813	Period: 1 hr Temp.: 0 °C	Pass
Dimensional stability at high temp.	EN 15818	Period: 1 hr Temp.: 70 °C	Pass
Water Resistance	EN 15817	28 days in water	Pass
Rain Resistance	EN 15816	8 hr	R2
Thickness when fully dried	EN 15819	≤ 50%	Pass
Reaction to fire	EN 13501-1	Euroclass	E

APPLICATION

Surface Preparation

Application substrate must be dry, sound, mainly smooth, clean and fine pored, free from honey combs, voids, cracks, ridges, dust, tar, pitch forming oil, old paint and other bond breaking residues. Wooden or iron wedges must be removed from the surface and active water leakages must be prevented. Voids and hollows must be filled. On vertical and horizontal corners fillet with min. 4 cm radius must be applied. Priming the substrate with diluted **CERMIPROOF BITUM PLUS 2C** mixture is highly recommended.

Mixing

Add part B slowly into part A (in the pail) while mixing with 400-600 rpm electric drill. Mix at least 3-5 minutes until homogenous, lump free, pasty consistency obtained. Wait for 3-5 minutes and mix again about 30 seconds to make ready for application. Mix as much material as can be applied within the pot life. Mixed product can be consumed within 1-2 hours.

Primer Application

Mix the material as described. Take enough amount of material and dilute 1:3 or 1:5 of water depending on the substrate absorbency. Mix with 400-600 rpm electric drill until lump free, homogenous consistency obtained. Apply equally on the substrate with a brush and do not allow accumulation on horizontal surfaces. Wait until the primer sufficiently cured before the first coat application. Apply **CERMIPROOF BITUM PLUS 2C** with brush or spray equipment with the consumption mentioned on the coverage table.

Protection of the Coating

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. The product must be applied on the prepared surface as 2 coats by brush, trowel or spray. The second coat must be applied after the first coat is fully dry. **CERMIPROOF BITUM PLUS 2C** must be protected from damages during the backfilling with a suitable drainage or heat insulation boards. Sharp stones, rubbles and etc. are not suitable for backfilling. **CERMIPROOF BITUM PLUS 2C** is not UV resistant, it should be covered properly after application.

Cleaning of Tools

Clean the tools and equipments with warm soapy water after the application. Once **CERMIPROOF BITUM PLUS 2C** is cured, it can only be mechanically removed from the surface by using a suitable solvent.

PRECAUTIONS

- Do not apply **CERMIPROOF BITUM PLUS 2C** if the ambient and substrate temperature is less than 5 °C or more than 35 °C.
- Do not apply **CERMIPROOF BITUM PLUS 2C** under the rain or prediction of rainy weather.
- Application must be protected from direct sun-light, wind, frost or rain in 24 hours.
- Working times of cement and bitumen emulsion based systems are affected from
- environmental and surface temperatures, and relative humidity in the air. In low temperatures the reaction slows down, and this increases working period and working time. High temperatures accelerate the reaction and the periods stated above decrease depending on this. In order to complete the curing of material, environmental and surface temperatures must not decrease below the minimum allowed temperature.



- Areas that are not fully cured must not be exposed to water.
- Coating has to be applied on the surfaces of structure or structure parts that contact with water.
- **CERMIPROOF BITUM PLUS 2C** must be used within 1 hour after mixing.
- Do not **CERMIPROOF BITUM PLUS 2C** inside the potable water tanks and swimming pools.

CONSUMPTION

1.5 kg/m² should be applied to obtain 1 mm dry film thickness.

Application Surfaces	DRY Film (mm)	Consumption (kg)
Areas exposed to ground moisture	3 mm	4,5 kg/m ²
Waterproofing for temporary and high pressured water leakages	3 mm	4,5 kg/m ²
Areas subject to continuous pressure water	4 mm	6 kg/m ²

PACKAGING

22+8 kg Set with plastic bucket.

STORAGE & SHELF LIFE

- Store in cool and dry conditions protected from frost. In short-term storage, maximum 2 palletes can be stored on top of each other and delivery must be according to first in first out system. In long-term storage, do not store palletes on top of each other.
 - 12 months after the production date under appropriate storing conditions.
- CERMIPROOF BITUM PLUS 2C** may freeze under 0 °C. Tightly seal the cover of the opened pails and do not store more than one week.

HEALTH AND SAFETY PRECAUTIONS

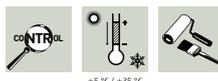
- Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application.
- Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application.
- If such a contact occurs, skin and eyes must be washed by soap and plenty of water.
- Consult a physician urgently if swallowed.
- Food and drink must be kept outside the application areas.
- Must be stored away from children.
- Please look at the Material Safety Data Sheet for detailed information.

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CERMITAPE TPE



Meshed, thermoplastic elastomer (TPE) waterproofing tape



- High adhesion,
- High elasticity,
- Chemical resistance,
- Resistant to water pressure,

- Resistant to weather conditions and water,
- Suitable for contact with drinking water,
- Waterproof.

DESCRIPTION

High transverse stretch, longitudinal rigid (non-stretch), mesh-carrying insulation band.

AREAS OF USAGE

It is easily applied in wet area (bathroom, balcony, terrace, roof etc.) waterproofing applications, horizontal and vertical joint and chamfer insulation, insulation of drain units, before ceramic and natural stone applications. It is suitable to use indoors where there is unpressurized water exposed to medium and high loads.

PROPERTIES

Carrier : Modified polyester mesh
Coating: Aging resistant, thermoplastic elastomer (TPE)
Color : Dark grey

TECHNICAL PERFORMANCE

PHYSICAL PROPERTIES (APPROX.)	TEST METHOD	VALUE
Breaking load (Longitudinal)	DIN EN ISO 527-3	63 N / 15 mm
Breaking load (Transverse)	DIN EN ISO 527-3	36 N / 15 mm
Elongation at break (Longitudinal)	DIN EN ISO 527-3	%26
Elongation at break (Transverse)	DIN EN ISO 527-3	%123
Power absorption capacity (25% horizontal flexibility)	DIN EN ISO 527-3	0,7 N/mm
Power absorption capacity (50% horizontal flexibility)	DIN EN ISO 527-3	0,9 N/mm
Pressurized water resistance	DIN EN 1928 (Metot B)	≥ 1,5 bar
UV-resistance	DIN EN ISO 4892-2	≥ 500 hours

REFERENCE STANDARDS AND APPROVALS

- Tested according to DIN EN ISO 527-3.

SURFACE PREPARATION

- Care should be taken to ensure that the internal and external surfaces are solid, dry, dust-free and clean, in balance and smooth.
- The surface should be free of all kinds of oil, grease, rust and paraffin residues that may adversely affect adherence, and there should be no loose particles on the surface.
- Surface defects should be corrected with **CERMIREP R4 T**.

APPLICATION DETAILS

- The first layer of **CERMIPROOF** products is applied to the application surface.
- **CERMITAPE TPE** is placed on the joint and pressed with a brush before the first layer of **CERMIPROOF** products dries. The parts with net and felt carrier are embedded in the first layer of **CERMIPROOF** products.
- After the first layer of **CERMIPROOF** products is cured, the application of the other layers can be started.

PACKAGING

10 meters and 50 meters in carton box

STORAGE AND SHELF LIFE

- 12 months from the date of production in moisture-free and dry environments, provided that the package is not opened and damaged.
- If the packaging film is opened, apply the material within 2 months.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the material safety data sheet (MSDS) of the product, which includes physical, ecological, toxicological and other safety-related information, for information and advice on the safe transport, storage and disposal of chemical products.

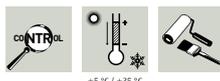


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CERMITAPE FPO 1 MM



High performance joint sealing tape



- High adhesion,
- High elasticity,
- Chemical resistance,
- Resistant to weather conditions and water,
- Root resistant,
- UV-resistant,
- Plasticiser-free,
- Suitable for contact with drinking water,
- Waterproof,
- Expansion joint.

DESCRIPTION

Flexible polyolefin (FPO) based joint sealing tape that provides waterproofing with suitable adhesives and sealants on various building surfaces in areas with high or frequent movements.

AREAS OF USAGE

It provides insulation together with sealants in pools, drinking water tanks, treatment plants, terraces and parapets, sewage facilities, tunnels, hydro power plants, expansion joints.

PROPERTIES

Chemical structure: Flexible Polyolefin (FPO)
Colour : Grey
Width : 200 mm

TECHNICAL PERFORMANCE*

Tear resistance - lengthwise	13,2 Mpa	(DIN EN 12311-2, Metot B)
Tear resistance - across	8,8 Mpa	(DIN EN 12311-2, Metot B)
Elongation at break - lengthwise	%980	(DIN EN 12311-2, Metot B)
Elongation at break - across	%800	(DIN EN 12311-2, Metot B)
Tear resistance (nail shank)-lengthwise	265 N	(DIN EN 12310-1)
Tear resistance (nail shank)-across	275 N	(DIN EN 12310-1)
Water vapour permeability	98 m	(DIN EN 1931, Metot B)
Shore A hardness	ca. 87	≥ 500 hours
Bonding strength	≥ 3,0 Mpa	(DIN EN 1348)
Peel test on wood carrier	≥ 100 N	
Water tightness		DIN EN 1928-A-60 kPa / 24 hours DIN EN 1928-B-400 kPa/72 hours
Burst pressure	≥ 3,6 bar	
UV-Resistance	≥ 6500 h	
Reaction to fire:	Class E	(DIN ISO 11925-2, EN 13501-1)

*These values were obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to the difference in the construction site environment.

REFERENCE STANDARDS AND APPROVALS

- Tested according to DIN EN ISO 9001:2015

APPLICATION PROPERTIES

Thickness : 1 mm
Total weight : 1020 g/m²
Length per roll : 20 m
Resistance to temperature: -30 °C / + 90 °C

SURFACE PREPARATION

- In dilatation joints, care should be taken to ensure that the internal and external surfaces are solid, dry, dust-free and clean, in balance and smooth.
- The surface should be free of all kinds of oil, grease, rust and paraffin residues that may adversely affect adherence and there should be no loose particles on the surface. Surface defects should be repaired with **CERMIREP R4 T**.

APPLICATION DETAILS

- **CERMITAPE FPO** is adhered with special adhesive mortar on both sides, reinforced with polypropylene carrier.
- **CERMITAPE FPO** can be easily and quickly applied to any crack or dilatation joint, it does not require any special equipment.
- A hot air welding tool is required for splicing tape rolls end to end.

PACKAGING

One roll 20 meters, 5 rolls per carton

STORAGE AND SHELF LIFE

- Do not open the package in dry and moisture-free environments and It is 12 months from the date of production provided that it is not damaged.
- If packaging film has been opened apply the material within 2 months.

HEALTH AND SAFETY PRECAUTIONS

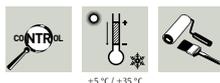
- Users should refer to the product safety data sheet (MSDS), which contain chemical, safe transport, physical, ecological, toxicological, and other safety-related information.

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CERMITAPE FPO 2MM



High performance joint sealing tape



- High adhesion,
- High elasticity,
- Chemical resistance,
- Resistant to weather conditions and water,
- Root resistant,
- UV-resistant,
- Plasticiser-free,
- Suitable for contact with drinking water,
- Waterproof,
- Expansion joint

DESCRIPTION

Flexible polyolefin (FPO) based joint sealing tape that provides waterproofing with suitable adhesives and sealants on various building surfaces in areas with high or frequent movements.

AREAS OF USAGE

It provides insulation together with sealants in pools, drinking water tanks, treatment plants, terraces and parapets, sewage facilities, tunnels, hydro power plants, expansion joints.

PROPERTIES

Chemical structure: Flexible Polyolefin (FPO)
 Colour : Grey
 Width: : 250 mm

TECHNICAL PERFORMANCE*

Tear resistance - lengthwise	9,8 Mpa	(DIN EN 12311-2, Metot B)
Tear resistance - across	8,9 Mpa	(DIN EN 12311-2, Metot B)
Elongation at break - lengthwise	%1000	(DIN EN 12311-2, Metot B)
Elongation at break - across	%1100	(DIN EN 12311-2, Metot B)
Tear resistance (nail shank)-lengthwise	600 N	(DIN EN 12310-1)
Tear resistance (nail shank)-across	650 N	(DIN EN 12310-1)
Water vapour permeability	180 m	(DIN EN 1931, Metot B)
Shore A hardness	ca. 87	≥ 500 hours
Bonding strength	≥ 3,0 Mpa	(DIN EN 1348)
Peel test on wood carrier	≥ 100 N	
Water tightness		DIN EN 1928-A-60 kPa / 24 hours DIN EN 1928-B-400 kPa/72 hours
Burst pressure	≥ 4,0 bar	
UV-Resistance	≥ 6500 h	
Reaction to fire:	Class E	(DIN ISO 11925-2, EN 13501-1)

*These values were obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to the difference in the construction site environment.

REFERENCE STANDARDS AND APPROVALS

- Tested according to DIN EN ISO 9001:2015

APPLICATION PROPERTIES

Thickness : 1 mm
 Total weight : 2070 g/m²
 Length per roll : 20 m
 Resistance to temperature: -30 °C / + 90 °C

SURFACE PREPARATION

- In dilatation joints, care should be taken to ensure that the internal and external surfaces are solid, dry, dust-free and clean, in balance and smooth.
- The surface should be free of all kinds of oil, grease, rust and paraffin residues that may adversely affect adherence and there should be no loose particles on the surface. Surface defects should be repaired with **CERMIREP R4 T**.

APPLICATION DETAILS

- **CERMITAPE FPO** is adhered with special adhesive mortar on both sides,
- reinforced with polypropylene carrier.
- **CERMITAPE FPO** can be easily and quickly applied to any crack or dilatation joint, it does not require any special equipment.
- A hot air welding tool is required for splicing tape rolls end to end.

PACKAGING

One roll 20 meters, 4 rolls per carton

STORAGE AND SHELF LIFE

- Do not open the package in dry and moisture-free environments and It is 12 months from the date of production provided that it is not damaged.
- If packaging film has been opened apply the material within 2 months.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), which contain chemical, safe transport, physical, ecological, toxicological, and other safety-related information.

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CERMITAPE FPO 1-2 MM APPLICATION PROCESS

Step-1

Prepare the substrate by means of sand blasting, grinding etc., followed by vacuuming and cleaning.



Step-2

In case of expansion joints or cracks, it is essential that a stripe of > 1 mm in the center of the CERMITAPE remains unbound, that means free of adhesive. For this reason, insert a foam backer rod inside the joint and apply a masking tape on top of the joint / crack (masking tape = twice the width of the joint). In addition, put another masking tape at each side of the joint before applying the adhesive. The distance to the joint should be approx. once the full size of the CERMITAPE.

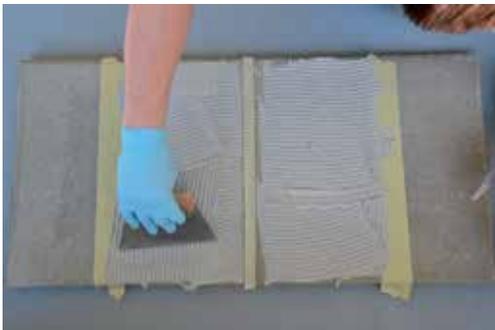
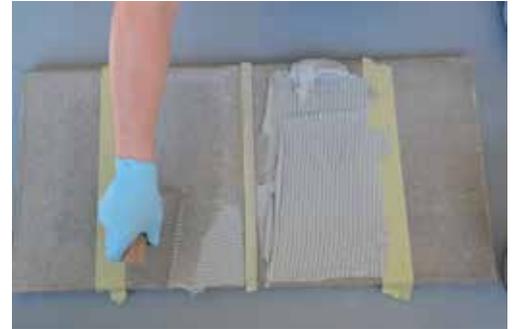
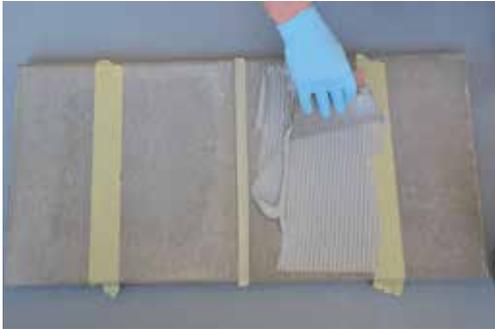


WATERPROOFING MATERIALS

CERMITAPE FPO 1-2 MM APPLICATION PROCESS

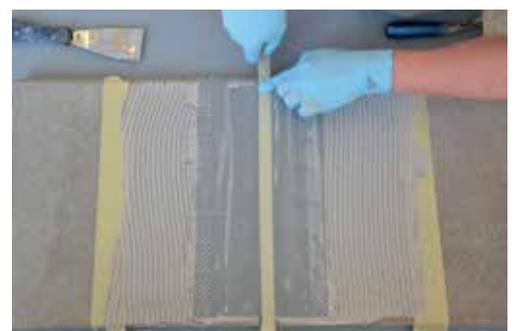
Step-3

Apply the epoxy adhesive on the left-hand and the right-hand side of the joints. Do not cover the central masking tape with adhesive!



Step-4

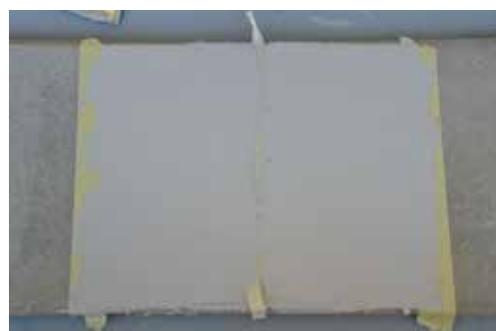
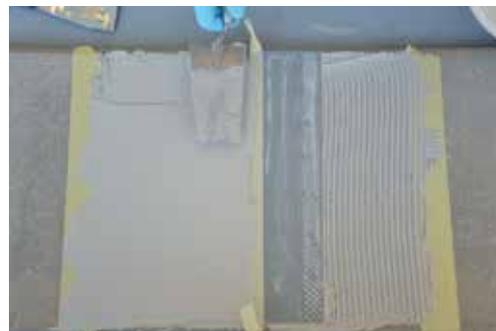
No activation on job site is required. In case of dirt, clean the surface of the **CERMITAPE** with a dry or wet cloth. Use nothing but water for cleaning, NO SOLVENTS. Apply the **CERMITAPE** on the joint and firmly press the tape into the adhesive bed, avoid air pockets by using a suitable tool. Apply a masking tape in the middle of the tape.



CERMITAPE FPO 1-2 MM APPLICATION PROCESS

Step-5

Cover the Flex applying the second layer of adhesive. In order to guarantee a good adhesion with the surface the adhesive should exceed the tape by a full width of the Flex tape = up to the two lateral masking tapes.



TAPE SELECTOR (POSITIVE PRESSURE)

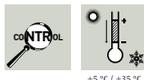
Movement	Joint Width			
	1-50 mm	50-75 mm	75-100 mm	Overlapping
CERMITAPE 1 mm only for low water pressure < 1,5 bar				
0 mm	150 mm	200 mm	200 mm	Chemical bounding Hot welding**
up to 20 mm	150 mm	200 mm	200 mm	Hot welding**
up to 50 mm			300 mm	Hot welding**

Movement	Joint Width			
	1-50 mm	50-75 mm	75-100 mm	Overlapping
CERMITAPE 2 mm only for low and high water pressure				
0 mm	150 mm	200 mm	200 mm	Chemical bounding Hot welding**
up to 20 mm	150 mm	200 mm	200 mm	Hot welding**
up to 50 mm		250 mm	300 mm	Hot welding**

CERMIPROOF HYBRID POLYUERA 2C



Two component, very rapid curing, VOC-free, and a hybrid polyurea system



- Economical alternative to pure polyurea systems,
- Fast curing,
- Odorless,
- Does not contain catalysts,
- High temperature stability,
- Waterproof,
- High adhesion strength,
- High elasticity,
- Not affected by humidity and temperature,
- High tensile and structural strength,
- The thin fillings it contains do not collapse within the wet thickness of the material,
- Crack bridging.

DESCRIPTION

Two component, aromatic isocyanate prepolymer and amine-terminated flexible resin formed by reaction, a 100% non-volatile solids is spray coating.

AREAS OF USE

- Ceramic, plaster concrete, marble and other floors,
- Areas with light pedestrian traffic such as roofs, balconies, terraces, walkways and public areas,
- Waterproofing of concrete and load-bearing walls on floors,
- Playgrounds and decorative applications,
- Thermal insulation products for waterproofing (polyurethane foam, EPS, XPS etc.)

PROPERTIES

Material structure A: Isocyanate prepolymer

Material Structure B: Amine resin

Density : 0.99-1.03 kg/lit (ASTM D792)
1.11 ± 0.03 kg/lit (**Prepolymer (A)**)
1.02 ± 0.02 kg/lit (**Amine Resin (B)**), ASTM D 1217

Viscosity : 700-800 mPa.s (**Prepolymer (A)**),
300-600 mPa.s (**Amine Resin (B)**), ASTM D 4878

TECHNICAL PERFORMANCE*

Tensile strength : ≥15 MPa (ASTM D638)
Tear resistance : ≥25 MPA (ASTM D-624)
Taber abrasion resistance: <250 mg (EN ISO 5470-1), (H22, 1000 cycles)
Impact Resistance : Class III (EN ISO 6272-1)
Bond strength : Concrete: ≥3 MPa, Steel: ≥6 MPa (ASTM D4541)

Crack bridging property under normal conditions : 2 mm

*These values were obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may change due to the difference in the construction site environment.

APPLICATION SURFACES

Concrete, steel, aluminum, fiber, is applied to surfaces such as wood and foam.

APPLICATION CONDITION

	Surface Temperature	Ambient Temperature
Minimum	60 °C	60 °C
Maximum	85 °C	85 °C

APPLICATION PROPERTIES

Modulus : 100% elongation ≥5 MPa (ASTM D638)
Elongation at break : 350% (ASTM D638)
Hardness (Shore A) : 90-95 (ASTM D2240)
Volatile component content: 0% (ASTM D1259)
Solid content : 100% (ASTM D2697)
Gel time : 5-15 seconds
Skin formation time : 15-30 seconds
Recoating time : 0-12 seconds (without pretreatment)

SURFACE PREPARATION

- In order to obtain a smooth surface and increase the adhesion strength, the surface should be primed.
- Before the primer is applied, 0.3-0.8 mm quartz sand should be spread lightly on the surface.
- Because this process both extends the waiting time of the primer and ensures even higher adhesion values of the polyurea.
- However, avoid excessive application to prevent bubble formation.
- Generally, the coating performance and adhesion are directly proportional to the proper soil preparation.
- The biggest cause of surface coating failures is the lack of adequate and proper surface preparation.
- Abrasive blasting should be done to remove cement laitance on concrete surfaces and to obtain a smooth surface.
- Weak concrete pieces should be removed from the surface and surface defects such as voids should be fully exposed.
- The surface should be leveled with suitable filling products.
- All dust, loose and crumbling materials formed as a result of the processes should be cleaned from the entire surface with the help of brush and / or vacuum (vacuum cleaner can be used).
- The minimum surface tensile strength required for the application is 1.5 N/mm and the concrete humidity is maximum 4% pbw (with a suitable moisture tolerant primer it can be up to 6% pbw).
- The moisture content should be measured with a moisture meter.
- Pay attention to the concentration; The temperature of the substrate should be at least 3 °C higher than the dew point to reduce the risk of condensation of the coating.
- Relative humidity in the air during application should be maximum 85%.
- For these reasons, determine the moisture content of the surface, the relative humidity in the air and the dew point before application.

MIXING

Mix ratio by volume: A: 100, B: 100

APPLICATION CONDITION

- It should be applied within 12-24 hours after polyurea primer application.
- Isocyanate and amine resin components should be applied by a two-component high-pressure and temperature-capable spray machine.
- Machine components should be able to spray 1:1 by volume and heat both components to 70 °C.
- In order to achieve a good performance, it is very important that the temperature and pressure be constant throughout the application and should be kept under regular control.
- Polyurea components cannot be diluted under any circumstances.
- Before application, the amine component should be mixed with the barrel mixer for at least 30 minutes until a homogeneous mixture and color is obtained.
- When the coating is cured, it may lose color under UV light.
- However, this does not affect the performance or physical properties of the product.
- If color stability is required, the aliphatic top coat should be applied within 12 hours after the base coat.

PRECAUTIONS

- Polyurea components are sensitive to moisture. Therefore, it should be stored in closed barrels.
- The amine component should be stored in a sealed container and mixed before use.
- Aromatic polyurea systems are systems that show UV resistance but not color stability. For this reason, these systems may change color when exposed to sunlight. For this reason, it is recommended to use an aliphatic top coat system for outdoor applications. The change in color does not change the physical properties of the material.

SPECIAL CONDITIONS

- Polyurea components are sensitive to moisture. Therefore, it should be stored in closed barrels.
- The amine component should be stored in a sealed container and mixed before use.

PACKAGING

Primer : 0.3 to 0.5 kg/m
Quartz sand : 1-1.5 kg/m
Polyurea coating: 1.05- 1.1 kg/m/mm (recommended minimum for 2 mm.)
Note: It varies depending on the surface roughness and intended use.

PACKAGING

200 kg barrel (Amine component)
225 kg barrel (Isocyanate component)

STORAGE & SHELF LIFE

- Polyurea system components should be stored between 20 °C - 30 °C.
- It has a shelf life of 6 months from production.

HEALTH AND SAFETY PRECAUTIONS

- Avoid contact with eyes and skin. In case of contact with eyes or skin, seek medical advice immediately.
- If swallowed, immediately seek medical advice or a poison control center.
- Do not induce vomiting of the swallower, or give anything by mouth.
- Wash your hands after using the product.
- Wear protective clothing, gloves, eye and face protection.
- Do not eat or drink while using the product.
- Remove contaminated clothes, reuse clothes after cleaning.
- Keep the cover of the product closed when not in use.
- Keep out of the reach of children.

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CERMIPROOF PURE POLYUERA 2C



Two component, very fast curing, VOC free, aromatic 100% pure polyurea system



+5 °C / +35 °C

- Fast curing,
- Smooth coating,
- Odorless,
- Environmentally friendly,
- High tensile and structural strength,
- High temperature stability,
- High chemical resistance,
- High abrasion and impact resistance,

- High adhesion strength,
- High flexibility,
- High gap filling feature,
- Ideal for complex and detailed applications,
- UV, chlorine and sea water resistant,
- Thin fillings it contains do not collapse within the wet thickness of the material,
- Crack bridging.

DESCRIPTION

Two component, aromatic isocyanate prepolymer and amine-terminated flexible resin formed by reaction, spray coating is 100% solids.

AREAS OF USE

- General waterproofing and anti-corrosion water tanks, pools, swimming pools, ponds, water pipes, pipelines, waste water facilities, manhole, sewer, roofs and balcony coatings.
- Floors - industrial flooring, hospitals, warehouses, factories, parking lots, garages, floors requiring high traffic, transportation and van cases.
- Building - roads, bridges, railways and high-speed trains, piers, tunnels, airports and road lines.
- Ship decks and underwater parts and harbor linings in the marine industry.
- Lining of trucks and pickup cabins and steel containers in transportation.
- Oil and gas industry, mining, energy industry, secondary storage tanks in industrial applications.
- Entertainment industry - water parks, aquariums, playgrounds, decorative designs.
- Waterproofing of thermal insulation products such as polyurethane foam, EPS, XPS.

PROPERTIES

Material structure A: MDI prepolymer

Material Structure B: Amine resin

Density : 0.99-1.03 kg / lt (ASTM D792)
 1.11 ± 0.03 kg / lt (**Prepolymer (A)**)
 1.02 ± 0.02 kg / lt (**Amine Resin (B)**), ASTM D 1217

Viscosity : 700-800 mPa.s (**Prepolymer (A)**),
 300-600 mPa.s (**Amine Resin (B)**), ASTM D 4878

TECHNICAL PERFORMANCE*

Tensile strength : 18 MPa (ASTM D638)
Modulus : 100% elongation 10 MPa,
 300% elongation 15 MPa (ASTM D638)

Elongation at break : 350% (ASTM D638)
Hardness (Shore D) : 40-45 (ASTM D2240)
Hardness (Shore A) : 90-95 (ASTM D2240)
Tear resistance : 50N / mm (ASTM D 624)
Process pressure : A: 180-200 Bar B: 180-200 Bar
Taber abrasion resistance: <30 mg (EN ISO 5470-1), (H22, 1000 cycles)
Impact resistance : Class III (EN ISO 6272-1)
Adhesion strength : Concrete: 2.5 MPa, Steel: 6 MPa ASTM D 4541

Crack bridging property under normal conditions : 2mm

*These values were obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may change due to the difference in the construction site environment.

APPLICATION SURFACES

Concrete, metal, wood, ceramics, aluminum, plastic, is applied to surfaces such as fiber and polyurethane foam.

APPLICATION CONDITION

	Surface Temperature	Ambient Temperature	Relative Humidity in the Air
Optimum	10 °C - 30 °C	20 °C - 30 °C	25-50%
Minimum	-10 °C	-10 °C	0%
Maximum	50 °C	50 °C	85%

APPLICATION PROPERTIES

Application temperature : A: 70-80 °C, B: 70-80 °C
Temperature resistance : -30°C-100°C
Volatile component content: 0% (ASTM D1259)
Solid content : 100% (ASTM D2697)
Gel time : 5-10 seconds
Skin formation time : 15-30 seconds
Recoating time : 0-12 hours (without pretreatment)
Time after curing : 24 hours

SURFACE PREPARATION

- The surface should be primed to obtain a smooth surface and increase its adhesion.
- Before applying the primer, 0.3-0.8 mm quartz sand should be spread lightly on the surface. Because this process both extends the waiting time of the primer and enables even higher adhesion values of polyurea.

MIXING

Mix Ratio By Volume: A: 100, B: 100; By weight A: 112, B: 100

APPLICATION CONDITION

- Polyurea primer should be applied within 12 to 24 hours after administration.
- Isocyanate and amine resin components should be applied by a two component high pressure and temperature working spray machine.
- Machine components should be able to spray 1:1 by volume and heat both components to 70 °C.
- It is very important that the temperature and pressure be constant throughout the application in order to obtain a good performance and should be kept under regular control.
- Before application, the amine component should be mixed with the barrel mixer for at least 30 minutes until a homogeneous mixture and color is obtained.

PRECAUTIONS

- May cause damage to health in contact with skin and eyes.
- Avoid breathing fumes.
- Cured coating may change color under sunlight.
- Wear suitable clothes, glasses and gloves during application.
- Do not apply in frost or frost risk.
- Until the applied surface is completely dry, rain, frost, pedestrian traffic and high traffic protect from moisture.
- Under conditions where surface and ambient temperature is lower than -10 °C and higher than + 50°C do not apply.
- Protect the surface from heavy traffic for 24 hours after the application.

SPECIAL CONDITIONS

- Avoid over application to prevent bubble formation.
- Polyurea components are sensitive to moisture.
- Polyurea components cannot be diluted under any circumstances. Therefore, it should be stored in closed barrels. The amine component should be stored in a sealed container and mixed before use.
- When the coating is cured, it may lose color under UV light. However, this does not affect the performance or physical properties of the product. If color stability is required, the aliphatic top coating should be applied within 12 hours after the base coat.

PACKAGING

Primer : 0.3 to 0.5 kg/m
Quartz sand : 1-1.5 kg/m
Polyurea coating: 1.05- 1.1 kg/m/mm (recommended minimum for 2 mm.)
Note: It varies depending on the surface roughness and intended use.

PACKAGING

200 kg barrel (Amine component)
225 kg barrel (Isocyanate component)

STORAGE & SHELF LIFE

- Polyurea system components should be stored between 20 °C - 30 °C.
- It has a shelf life of 9 months from production.

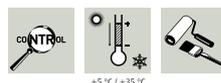
HEALTH AND SAFETY PRECAUTIONS

- Avoid contact with eyes and skin. In case of contact with eyes or skin, seek medical advice immediately.
- If swallowed, immediately seek medical advice or a poison control center.
- Do not induce vomiting of the swallower, or give anything by mouth.
- Wash your hands after using the product.
- Wear protective clothing, gloves, eye and face protection.
- Do not eat or drink while using the product.
- Remove contaminated clothes, reuse clothes after cleaning.
- Keep the cover of the product closed when not in use.
- Keep out of the reach of children.

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Primer



- *Regulates the porosity of the cement and gypsum based surfaces, and improves the bonding performance of cement based adhesives and leveling mortars,*
- *Solvent-free and odorless. Safe to use in closed areas,*
- *Prevents dust formation on surfaces.*

DESCRIPTION

• Synthetic resin based primer which balances water absorption on surfaces. Prepares porous surfaces to the application of cement based mortars. It regulates the porosity of surfaces prior to the application of tile adhesives, leveling compounds and plasters reinforcing cohesion of the substrate's surface and improving the adhesion of mortars. It is ready to use.

AREAS OF USE

• Suitable for use in internal and external areas, vertical and horizontal priming applications. Ideal for priming onto concrete, cementitious screeds and plasters, gypsum and wooden based substrates as a surface treatment prior to the application of a cementitious product.

FEATURES

Material content: Acrylic polymers and additives, water.

Type : Liquid
Color : Orange
Density : 1,01 gr/cm³

APPLICATION PROPERTIES

Application temperature: +5 °C - +35 °C
Drying time : minimum 3 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to moisture : good
Resistance to alkalis and acids: moderate
Resistance to thermal shocks : excellent
Flexibility : good

SURFACE PREPARATION

- The substrate must be clean in order to ensure the primer bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Cracks on the substrate should be repaired prior to priming.

APPLICATION

- **CERMIFILM** is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out.
- It is applied directly on the substrate with a sponge, roller or brush sufficiently, making sure that the surface is fully covered. For very porous surfaces a second coat may be required.
- Wait for primer to dry well before the following application. Drying time may extend at low temperatures and with high humidity.
- Due to difficulty of cleaning, avoid splashes of product during application.

PRECAUTIONS

- Do not add any water or other component.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Do not apply onto non-porous or hydrophobic surfaces.
- Do not apply onto wet surfaces or substrates with high humidity.
- **CERMIFILM** reduces surface porosity. It cannot be used for waterproofing purposes.
- Do not leave exposed to direct sunlight or water effect after it dries. In these conditions, continue with the following application immediately.

COVERAGE

• The approximate coverage amount (lt/m²) may vary depending on the porosity of the substrate: Coverage for one coat: 0,100-0,200 lt/m²

PACKAGING

- Plastic cans of 5 lt (84 cans / 420 kg on a pallet)

STORAGE AND SHELL LIFE

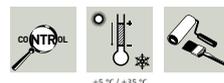
- When stored unopened in a cool, dry place at temperatures above 4 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.



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High performance primer

- *Regulates the porosity of the cement and gypsum based surfaces,*
- *Improves the bonding performance of cement based mortars on low-porosity or non-porous surfaces such as concrete, existing tiles,*
- *Particularly for use as a primer prior to tiling onto existing tiles,*
- *Solvent-free and odorless. Safe to use in closed areas,*
- *Prevents dust formation on surfaces.*

DESCRIPTION

• Synthetic resin based, high performance adhesion primer with mineral fillings. Prior to the application of tile adhesives, leveling compounds and plasters on low porosity or nonporous surfaces, it reinforces cohesion of the substrate's surface and improves the adhesion of mortars. It reduces and regulates water absorption level on porous surfaces prior to the application of cement based mortars for improved bonding. It is ready to use.

AREAS OF USE

• Suitable for use in internal and external areas, vertical and horizontal priming applications. Ideal for priming onto porous or nonporous surfaces such as concrete, cementitious screeds and plasters, gypsum and wooden based substrates, existing tile and marble surfaces as a surface treatment prior to the application of a cementitious product. Particularly for use as a primer prior to tiling onto existing tiles.

FEATURES

Material content: Acrylic polymers, additives, mineral fillings and water.

Type : Liquid
Color : Blue
Density : 1,4 gr/cm³

APPLICATION PROPERTIES

Application temperature: +5 °C - +35 °C
Drying time : minimum 6 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to moisture : good
Resistance to alkalis and acids: moderate
Resistance to thermal shocks : excellent
Flexibility : good

SURFACE PREPARATION

- The substrate must be clean in order to ensure the primer bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Cracks on the substrate should be repaired prior to priming.

APPLICATION

- **CERMIFILM PLUS** is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out.
- It is applied directly on the substrate with a roller or brush sufficiently, making sure that the surface is fully covered.
- Wait for primer to dry well before the following application. Drying time may extend at low temperatures and with high humidity.
- Due to difficulty of cleaning, avoid splashes of product during application.

COVERAGE

• The approximate coverage amount (kg/m²) may vary depending on the porosity of the substrate: Coverage for one coat: 0,300-0,400 kg/m²

PACKAGING

- Plastic cans of 10, 5, 3 and 1 kg

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 4 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At

maximum 4 cans should be overlaid for storage.

- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

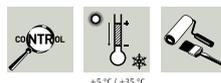


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CERMIFILM PLUS BETON



Acrylic resin based filling primer



- Easy to prepare and use, solvent-free and odorless,
- Becomes ready to use upon mixing with water,
- Increases adhesive resistance by forming a rough surface,
- Promotes adhesion of cement and gypsum based application to smooth concrete surfaces with adequate resistance,
- Suitable for application by brushes and rolls.

DESCRIPTION

• Synthetic resin based filling primer increasing surface adherence applied to smooth concrete surfaces prior to cement and gypsum based plaster applications.

TECHNICAL PROPERTIES*

Material structure : Acrylic resin based dispersion

Color : Green

Density : ~1,55±0,05 kg/l

*The values above are applicable for +23 °C and an atmosphere containing 50% relative humidity.

APPLICATION SURFACES

• Used as primer in concrete, wall, ceiling, horizontal and vertical surfaces to increase adherence under the plaster and prevent water absorbance. Suitable for indoor and outdoor use.

APPLICATION CONDITION AND LIMITS

- The product is not suitable for atmospheres with high humidity rate. (e.g. baths, swimming pools etc.)
- Avoid applying on wet, frozen and damp surfaces.

APPLICATION PROPERTIES

- Mixing water : max. 40% by weight
- Curing time : 120-180 mins.
- Waiting time after application: Min. 24 hours
- Application thickness : Min. 0,20 mm - max. 0,30 mm
- Surface temperature : (+5 °C) - (+30 °C)

SURFACE PREPARATION

- Make sure that the application surface is solid and stable.
- Avoid applying on damp or wet surfaces.
- Clean the surface with suitable cleaning equipment.
- Make sure that the surface is dry, supportive, dust-free, clean and free from all kinds of oil, grease, rust, and paraffin residues.

APPLICATION DETAILS

- Dilute with maximum 40% water.
- Stir the product in its own package with a low-speed mixer (max. 500 cyc/mn) mechanically until acquiring a homogenous and smooth mixture.
- Wash all the tools and equipment with clean water immediately after the application. Materials may only be cleaned mechanically after cure.

PRECAUTION

- Prevent primer from contamination during and after application.
- Ambient temperature must be appropriate. (+5 °C - +30 °C)
- Mix the product at intervals during application to ensure homogeneity.

CONSUMPTION

- ~ 0,175 – 0,350 kg/m² (with water)
- ~ 0,125 – 0,250 kg/m² (without water)
- Consumption values are theoretical and subject to change according to surface and application conditions.

PACKAGING

12 kg plastic buckets

STORAGE AND SHELF LIFE

- Original unopened and undamaged packaging, avoid direct sunlight, excessive dry, between + 10 °C and + 30 °C, protecting from heat, frost and humidity.
- 12 months from date of manufacture if stored.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), which contain chemical, safe transport, physical, ecological, toxicological, and other safety-related information.

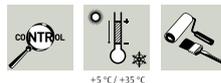


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CERMIFILM PLUS RAPID



Syntetic resin based, fast drying primer to increase adhesion to the surface



- Ready to use,
- Solvent free,
- Fast drying,
- Practical packaging for easy application,
- Before application on glossy surfaces (ceramic, marble, etc.)
- Before application on absorbent surfaces (gypsum, concrete, plaster, etc.)

DESCRIPTION

• **CERMIFILM PLUS RAPID** is solvent-free primer, synthetic resin and selected aggregates, has high adhesion strength.

AREAS OF USAGE

- Before application on glossy surfaces such as Ceramic, marble, etc.
- **CERMIFILM PLUS RAPID** should be applied on absorbent surfaces such as concrete, gypsum, plaster.
- It is used to increase the adhesion of cement, gypsum and lime based plasters.

PROPERTIES

Chemical structure: Dense liquid
Color : Green
Density : 1,51 kg/l
Solid content : 72%
Viscosity : 3,000 mPa s

APPLICATION CONDITION

- There is no need to wet the surface before applying **CERMIFILM PLUS RAPID**.
- Sub-surfaces must be clean, dry, well cured and free of oil, grease, cement residue and loose particles.

APPLICATION SURFACES

- Ideal for plasters and surface leveling and leveling components, it creates a rough interlocking surface, thus providing an excellent adhesion on smooth and low absorbency surfaces, reducing and balancing water absorption on absorbent surfaces.
- When it dries, it provides strong adhesion of all kinds of cement-based plaster on various sub-surface types (concrete, plasterboard, wood, ceramic, plaster, gypsum, etc.).
- **CERMIFILM PLUS RAPID** is ready to use, easy to apply with a roller or brush.

SURFACE PREPARATION

- Make sure that the application surface is solid and stable.
- Avoid applying on damp or wet surfaces.
- Clean the surface with suitable cleaning equipment.
- Make sure that the surface is dry, supportive, dust-free, clean and free from all kinds of oil, grease, rust, and paraffin residues.

APPLICATION PROPERTIES

Application temperature : between +5 °C and +35 °C
Waiting time before plaster application : 15-20 minutes
Waiting before applying leveling compound duration: 30 minutes
Minimum waiting time : 15-30 minutes
It changes according to the temperature of the substrate and ambient conditions.

APPLICATION DETAILS

- **CERMIFILM PLUS RAPID** is applied by roller or brush to the substrate.
- Mortar or plaster can be applied after **CERMIFILM PLUS RAPID** has dried.
- **CERMIFILM PLUS RAPID** can be applied in two layers.

CONSUMPTION

For one layer, the consumption amount is 0.200-0.300 kg / m. It varies according to the absorbency of the surface.

PACKAGING

5 kg plastic bucket

STORAGE AND SHELF LIFE

- Original unopened and undamaged packaging, avoid direct sunlight, excessive dry, between + 10 °C and + 30 °C, protecting from heat, frost and humidity.
- 12 months from date of manufacture if stored.

HEALTH AND SAFETY PRECAUTIONS

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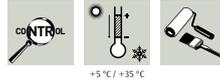


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CERMIPRIME EPR 2C



Two components, epoxy resin based primer



- High adhesion strength,
- Low viscosity,
- High penetration,

- High physical and chemical resistance,
- Solvent free,
- Multipurpose usage.

DESCRIPTION

Two component, epoxy based, solvent free, low viscosity, transparent primer material that can be used before epoxy and polyurethane floor coatings and on cement based mineral surfaces. Fills the pores of the concrete surface, and is used in the repair and reinforcement of concrete floors.

AREA OF USAGE

- As a primer coat in epoxy and polyurethane floor coverings,
- Repairing and strengthening of reinforced concrete floors.

ÖZELLİKLER

- Density A Component (25 °C) : 1,15 ±0.02 gr/cm²
- Density B Component (25 °C) : 0,95 ±0.02 gr/cm²
- Density A + B Mixture (25 °C) : 1,05 ±0.02 gr/cm²
- Viscosity (25 °C): Mixture : 600-1200 mPas
- Solid matter content by weight : ~100%
- Solid matter content by volume: ~100%
- Color : Transparent
- Chemical structure : Epoxy

TECHNICAL PERFORMANCE*

Tensile adhesion strength: > 1.5 N/mm (adhesion to concrete) (EN 1504-2)
Taber abrasion : ≤ 100 (EN 1504-2)

*These values were obtained as a result of laboratory experiments and are the performance values of 7 days after the finished applications. Values may vary due to differences in jobsite environment.

REFERENCE STANDARDS AND APPROVALS

- Tested according to EN 1504-2

APPLICATION SURFACES

Interior and Exterior; cement based mortar and concrete, metal.

APPLICATION CONDITION

- Concrete humidity must be maximum 5% when measured with CM Moisture Meter (carbide method).
- Concrete surface should be clean, strong and have sufficient compressive strength (at least 25 N / mm), and tensile strength (pull off) should be at least 1.5 N/mm².
- On the absorbent surfaces, the second layer of primer should be applied after 6 hours.
- Reinforced concrete floor must have completed 21 days curing period.
- In foundation, capillarity should be prevented with moisture barrier.

APPLICATION PROPERTIES

- Pot life : 45 ±5 min.
- Surface temperature : Minimum 10 °C / Maximum 30 °C
- Waiting time between coats: 10-24 Hours
- Pedestrian traffic : 12 Hours
- Final curing : 7 Days

SURFACE PREPARATION

- Substrates must be sound, dry, clean and free from laitance, ice, standing water, grease, oils, old surface treatments or coatings and all loose or friable particles must be removed to achieve a laitance and contaminant free, open textured surface.
- Substrate Quality of mortar and concrete must be older than 28 days.
- **Surface repairs:** Joints, capillary cracks should be widened, pit areas should be cleaned and filled with epoxy mortar.

MIXING

Component A should be homogenized with low speed drill for about 1 minute in its package, then component B should be added and mixed with low speed drill for about 3 minutes.

APPLICATION DETAILS

- Make sure that the mixture is made completely, put the ingredients in another container and mix again until you get a smooth mixture. To minimize the foam that will occur with air entrainment. Mix with 300-400rpm / min mixers to download and avoid over-mixing.
- **Application as a primer:** Make sure that a continuous, non-porous coat covers the surface. If necessary, apply two coats of primer. **CERMIPRIME EPR 2C** can be applied by roller or trowel. The preferred application is to use a trowel and to be passed over with a roller. **CERMIPRIME EPR 2C A + B** mixture is applied on the floor by roller or by pulling a zero comb. If an epoxy or polyurethane based coating is to be applied on it, **CERMIPRIME EPR 2C** is sprinkled with 0.1-0.3 mm or 0.3-0.8 mm diameter silica sand while it is still wet.
- **Application as leveling mortar:** Rough surfaces need to be leveled first. Apply the leveling mortar according to the desired thickness with a notched trowel or squeegee.
- **Application as mortar coating / repair mortar:** Spread the mortar on the adherence bridge, which is still "sticky", using leveling laths. After a short time, tighten the surface with a trowel or Teflon coated finishing machine (usually 20-90 rpm). If the **CERMIPRIME EPR 2C A + B** mixture is thickened with silica sand, the mixture is applied with a trowel to the damaged surfaces as both primer and surface correction paste, and silica with a grain diameter of 0.1 - 0.3 mm or 0.3-0.8 mm while still wet sprinkle with sand.

PRECAUTIONS

- The product should be used within the pot life after mixing. Products that have reached the pot life during the application should never be used.
- It should not be applied on weak surfaces.
- During and after the application, the surface should be protected from air flows and contact with water should be prevented.
- It should not be applied on surfaces that are at risk of frost, frozen or melting ice within 24 hours.
- Working and reaction times of resin-based systems are affected by ambient and ground temperature and relative humidity in the air. At low temperatures, the chemical reaction slows down, this increases the usage time and the working time. High temperatures accelerate the chemical reaction and the times mentioned above decrease accordingly. For the material to complete its curing, the ambient and surface temperature must not fall below the minimum allowed value.
- Low temperatures will slow down the curing, while high temperatures will speed up the curing. In order to apply the mortar in the most efficient way, it is recommended to apply with the specified temperature range.
- Application should not be made on hot surfaces with excessive winds or direct sun, if it is necessary to apply in these environments, the environment and surface should be prepared for application before starting.
- It should not be applied in rainy weather, the applied surface should be protected from rain for 24 hours.
- In applications to be carried out at suitable temperatures, the materials to be used should be brought and stored in the application area 1-2 days beforehand and it should be ensured that they adapt to the environmental conditions.
- In order to ensure proper aggregate size distribution. Practical trials should be made for epoxy grout mixes.
- Please contact our technical service for different applications.

CONSUMPTION

Approximately 0,150-0,300 kg/m² depending on the concrete quality, surface absorbency and roughness. Primer usage and consumption may vary according to system solutions.

PACKAGING

- 14,8 kg (A+B) Prebatched unit, 10 kg + 4,8 kg in a metal buckets

STORAGE AND SHELL LIFE

- Original unopened and undamaged packaging, avoid direct sunlight, excessive dry, between + 10 °C and + 30 °C, protecting from heat, frost and humidity 12 months from date of manufacture if stored.

HEALTH AND SAFETY PRECAUTIONS

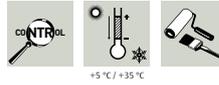
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CERMIPRIME PU



One component, polyurethane based, low viscosity, primer and impregnating material.



- Can be applied on moist surfaces
- Excellent adhesion and easy application on any surface
- Does not contain toxic substances after curing
- Perfectly and homogeneously covers the surface

DESCRIPTION

One component, polyurethane based, low viscosity, high mechanical and chemical resistance, high penetration, primer and impregnation material.

AREAS OF USAGE

Applicable indoors or outdoors, on vertical or horizontal surfaces.

PROPERTIES

Material structure : Polyurethane based, one component
 Density : ASTM D1475 / DIN 53217 ISO 2811 1,00±0,02 gr/cm³
 Appearance : Liquid, amber

TECHNICAL PERFORMANCES

(23 °C, %55 R.H.)	UNIT	METHOD	PROPERTIES
Viscosity (Brookfield)	cP	ASTM D2196-86	135±25
Curing Time	hour	(25 °C, 55% RH, hour)	4-6
Second Layer Application	min.	(25 °C, 55% RH, hour)	12-24

APPLICATION SURFACES

Concrete surfaces, metal surfaces, plastered surfaces, wooden surfaces, PVC based surfaces, bitumen based surfaces.

APPLICATION CONDITIONS AND LIMITS

- The application temperature (environment and surface) should be between +5 °C and +35 °C.
- Water vapor pressure should not be observed from the negative side on the surfaces. In such a case, water-proofing must be applied before application.
- The application should not be exposed to rain, frost, snow, humidity and water 24 hours before application, during application and 24 hours after application.

APPLICATION PROPERTIES

- The mixture of the material should be made with a special mixing device and tip that does not exceed 300-400 D/D and should not be mixed with a high speed drill.
- In cold weather, packaging must be kept at least 24 hours +15 °C before application.
- Complete mechanical and chemical resistance in 7 days.

SURFACE PREPARATION

- Application surfaces should be dry and clean. Concrete and plaster residues are mechanically; Oil, grease, fuel and paraffin wastes should be cleaned using chemical solvents. Damaged and cracks must be repaired with available product. The surface must have a compressive strength of at least 25 N/mm² and a pull-off test result of at least 1.5 N/mm². The new concrete must be at least 28 days old and the concrete surfaces must have a maximum moisture content of 8%. Cement residues and shiny cement grout on the concrete surface should be cleaned by sandblasting, milling, wiping machine, driven grinding and the surface should be roughened. The entire surface must be cleaned of dust.
- The relative humidity of the air should be at most 85%, the application temperature (environment and surface) should be between + 5 °C and + 35 °C.
- It should not be exposed to rain, humidity and water 24 hours before application, during application and 24 hours after application. The applied product must be protected against external factors and mechanical strain until it is fully cured.
- The floor temperature should be 3 °C above the condensation temperature of the moisture in the air at that time.

MIXING

Ready for use. Do not add thinner.

APPLICATION DETAILS

- CERMIPRIME PU is applied by roller, trowel, brush and airless spray.
- The product which is ready for application is applied to the surface to be saturated and pores to be closed. New coat application time is minimum 2-3 hours (23 °C) and max 24 hours. The primer surface should be sanded before the application of new coats exceeding 24 hours. It is very important that the second coat is applied within the new coat application period mentioned above. It reaches a complete mechanical and chemical resistance in 7 days.
- Cleaning tools: Cleaning of tools can be cleaned with cellulosic or polyurethane thinner,

PRECAUTIONS

- Work only in well-ventilated areas and in open areas. Keep in mind that solvent may smell indoor.
- Do not contact with open flames and do not smoke during application.
- Wear gloves, goggles and protective clothing.
- In case of contact with skin, wash with soap and water.
- Do not swallow.
- Only for professional use, keep out of the reach of children.

CONSUMPTION

200-250 gr/m²
 Consumption may vary depending on surface roughness, ambient and surface temperature and application method

PACKAGING

Tin cans of 15 and 4 kg

STORAGE AND SHELF LIFE

- Shelf life of 9 months in unopened and undamaged packages protected from moisture, water and sunlight. The production date is on the package.
- Even if opened packages are closed tightly, the product will freeze in a short time and the opened packages should be consumed in a short time.

HEALTH AND SAFETY PRECAUTIONS

- Technical values and application instructions are the results of our tests and experience in accordance with international standards, valid at 23 °C and 50% RH.

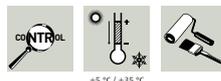


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CERMIPRIME PU PLUS



One component, STP based (Silane Terminated Polyether Polymer), low viscosity, primer and impregnating material for non-absorbent surfaces



- *Can be applied on moist surfaces*
- *Strongly adheres to glassy and non-porous substrates*
- *Excellent adhesion and easy application on any surface*
- *Does not contain toxic substances after curing*
- *Perfectly and homogeneously covers the surface*

DESCRIPTION

One component, STP based (Silane Terminated Polyether Polymer), low viscosity, high mechanical and chemical resistance, high penetration, primer and impregnation material which fills the gaps and small holes of the surface.

AREAS OF USAGE

Applicable indoors or outdoors, on vertical or horizontal surfaces.

PROPERTIES

Material structure : STP based (Silane Terminated Polyether Polymer), one component
Density : ASTM D1475 / DIN 53217 ISO 2811 1,00±0,02 gr/cm³
Appearance : Liquid, amber

TECHNICAL PERFORMANCES

(23 °C, %55 R.H.)	UNIT	METHOD	PROPERTIES
Viscosity (Brookfield)	cP	ASTM D2196-86	135±25
Curing Time	hour	(25 °C, 55% RH, hour)	4-6
Second Layer Application	min.	(25 °C, 55% RH, hour)	60

APPLICATION SURFACES

Ceramic tiles, natural stones, concrete, metal, plastered, PVC based, wooden and bitumen based surfaces.

APPLICATION CONDITIONS AND LIMITS

- The application temperature (environment and surface) should be between +5 °C and +35 °C.
- Water vapor pressure should not be observed from the negative side on the surfaces. In such a case, water-proofing must be applied before application.
- The application should not be exposed to rain, frost, snow, humidity and water 24 hours before application, during application and 24 hours after application.

APPLICATION PROPERTIES

- The mixture of the material should be made with a special mixing device and tip that does not exceed 300-400 D/D and should not be mixed with a high speed drill.
- In cold weather, packaging must be kept at least 24 hours +15 °C before application.
- Complete mechanical and chemical resistance in 7 days.

SURFACE PREPARATION

- Application surfaces should be dry and clean. Concrete and plaster residues are mechanically; Oil, grease, fuel and paraffin wastes should be cleaned using chemical solvents. Damaged and cracks must be repaired with available product. The surface must have a compressive strength of at least 25 N/mm² and a pull-off test result of at least 1.5 N/mm². The new concrete must be at least 28 days old and the concrete surfaces must have a maximum moisture content of 8%. Cement residues and shiny cement grout on the concrete surface should be cleaned by sandblasting, milling, wiping machine, driven grinding and the surface should be roughened. The entire surface must be cleaned of dust.
- The relative humidity of the air should be at most 85%, the application temperature (environment and surface) should be between + 5 °C and + 35 °C.
- It should not be exposed to rain, humidity and water 24 hours before application, during application and 24 hours after application. The applied product must be protected against external factors and mechanical strain until it is fully cured.
- The floor temperature should be 3 °C above the condensation temperature of the moisture in the air at that time.

MIXING

Ready for use. Do not add thinner.

APPLICATION DETAILS

- **CERMIPRIME PLUS PU** is applied by roller, trowel, brush and airless spray.
- The product which is ready for application is applied to the surface to be saturated and pores to be closed. New coat application time is minimum 2-3 hours (23 °C) and max 24 hours. The primer surface should be sanded before the application of new coats exceeding 24 hours. It is very important that the second coat is applied within the new coat application period mentioned above. It reaches a complete mechanical and chemical resistance in 7 days.
- Cleaning tools: Cleaning of tools can be cleaned with cellulosic or polyurethane thinner,

PRECAUTIONS

- Work only in well-ventilated areas and in open areas. Keep in mind that solvent may smell indoor.
- Do not contact with open flames and do not smoke during application.
- Wear gloves, goggles and protective clothing.
- In case of contact with skin, wash with soap and water.
- Do not swallow.
- Only for professional use, keep out of the reach of children.

CONSUMPTION

50-60 gr/m²

Consumption may vary depending on surface roughness, ambient and surface temperature and application method

PACKAGING

Tin cans of 2,5 kg

STORAGE AND SHELF LIFE

- Shelf life of 9 months in unopened and undamaged packages protected from moisture, water and sunlight. The production date is on the package.
- Even if opened packages are closed tightly, the product will freeze in a short time and the opened packages should be consumed in a short time.

HEALTH AND SAFETY PRECAUTIONS

- Technical values and application instructions are the results of our tests and experience in accordance with international standards, valid at 23 °C and 50% RH.



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High performance additive



+5 °C / +35 °C

- Improves final performance of cementitious mortars and mixtures,
- Improves corrosion and impact resistance,
- Provides and improves elasticity of mortars,
- Improves water repellency for cementitious joint fillers

DESCRIPTION

• High performance, synthetic resin based additive for cement based mortars and adhesives. It improves the mechanical strength, water repellency, flexibility and adhesion performance of cement based adhesives, joint fillers, plasters and mortars and etc. It is a non-toxic and non-flammable product for professional use.

AREAS OF USE

• It is added into cement, gypsum, cement-gypsum based adhesives, joint fillers and mortars for use in tiling, plastering and screed applications on industrial and public areas exposed to heavy loads or pedestrian traffic, in pools and wet areas, outdoor areas and external facades, under heated floors.

FEATURES

Material content: Emulsion containing synthetic polymers additives.
 Type : Liquid
 Color : White
 Ph : 8
 Density : 1,05 gr/cm³

APPLICATION PROPERTIES

Application temperature: +5 °C - +35 °C
 Additive mixing ratio : varies according to scope of usage

TECHNICAL PERFORMANCE

Resistance to moisture : excellent
 Resistance to alkalis : excellent
 Resistance to thermal shocks : excellent
 Flexibility : excellent

IMPACT OF CERMILATEX ON THE MORTAR

- Improves adhesion performance of cement based mortars.
- Improves corrosion and impact resistance.
- Improves thermal resistance, and prevents crack forming under severe freeze-thaw conditions.
- When added into cementitious tile adhesives, improves tensile strength, flexibility and resistance to thermal shocks for the adhesive.
- When added into cementitious joint filler, improves water repellency, abrasion and bending strength for the grouts.

APPLICATION

- **CERMILATEX** is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out.
- The additive mixing into mortar should be carried at an ambient temperature range of +5 °C - +35 °C.
- **CERMILATEX** is added into the mortar in the equivalent amount which is reduced from the regular mixing water amount for the relevant mortar. It is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 as minimum (as for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).
- For fixing onto impervious surfaces like existing tiles the surface may be primed with the mixture prepared by mixing **CERMIPLUS** and **CERMILATEX** in the ratio 1:1 (in equal amounts) is recommended. Two coats of mixture is applied on the surface for priming evenly. Consumption is 0,4 kg/m² in total (0,2 kg/m² of **CERMIPLUS** and 0,2 kg/m² of **CERMILATEX**).

- When high performance plastering or surface repairing is required such in pool applications, it is recommended to add **CERMILATEX** into the mixing water of **CERMIMORTAR 3-20** surface smoothing and restoration plaster in the ratio 1:3 (as for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).
- Due to difficulty of cleaning, avoid splashes of product during application.

PRECAUTIONS

- Do not add any water or other component.
- Do not apply onto metal, rubber, PVC, linoleum surfaces.
- Do not add into self leveling compounds.
- There might be early formation of films on carded surfaces, if product is used in a cement-based adhesive in hot and dry ambient. In case a film is formed on the surface, the adhesive should be removed from the surface and a new mixture should be reapplied.
- In pool applications; when added into mortars and plasters, leave plaster and screed for at least 6 weeks to fully cure before tiling.
- When added into adhesive, delays the curing of the adhesive particularly in cold ambient. Consult technical service for instructions.
- When added into plaster, the plaster will form a stickier consistency. Thus, care should be given during application.

COVERAGE

- The approximate coverage amount (lt) may vary depending on the scope of application. For average consumption values please refer to the application section.

PACKAGING

- Plastic cans of 5 lt (84 cans / 420 kg on a pallet)
- Plastic cans of 20 lt (24 cans / 480 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 4 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

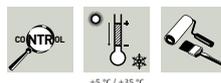
- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.



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Waterproofing admixture for cementitious mortar and concrete



- Increases the water impermeability in mortar and concrete,
- Ready to use,
- Easy to apply,
- Prevents the penetration of water at the capillary level in the cement based structure ,
- Increases the strength of the mortar,
- Does not affect the setting time of the mortar,
- Not affected by lime,
- Protects concrete reinforcement against corrosion.

DESCRIPTION

• Ready to use liquid additive material that provides water impermeability in the cementitious mortar mixtures which is chloride-free and blocks the pores in the concrete, screed, plaster etc.

AREAS OF USAGE

- Swimming pools, water tanks,
- Tunnels, channels,
- Foundation and curtain walls.

PROPERTIES

Density : 0,95-1,0 kg/l
Chemical structure: Mixture of liquid and sodium lignosulfonate
Color : Brown
pH : 10 ±1

APPLICATION SURFACES

- Cement based mortars,
- Plaster and screeds,
- Repair mortars,
- Exterior facade plasters.

APPLICATION PROPERTIES

- Ambient Temperature: +5 °C / +35 °C

MIXING

- **CERMIMIX** and water mix ratio is normally 1: 10, but if the sand (in the mortar) is too moist, the value can be increased to 1:8 or 1: 6.

APPLICATION DETAILS

- Shake **CERMIMIX** well before usage. **CERMIMIX** is added to clean water. Add the appropriate amount of **CERMIMIX** to the mortar.
- It improves water impermeability performance of cement-based mortars and concretes.
- Trial mixes should be made to determine dosage rates and water requirements.

PRECAUTIONS

- Product must not be applied on hot surfaces that are exposed to direct sunlight or to excessive wind. If it is necessary to apply the product under such circumstances, the surface and environment must be prepared for the application.
- Application in rainy weather must be avoided and the application surface must be protected against rain for a period of 24 hours.
- Do not use the mortar mix that has expired or filmed in the pot.
- It is important to have a homogenous distribution of the product in the mortar.
- For full performance of the admixture, the setting of the mortar should be completed.
- Please contact our technical service for different applications.

CONSUMPTION

- The approximate consumption amount may vary depending on the scope of the application.

PACKAGING

- 5 and 20 kg plastic buckets

STORAGE AND SHELL LIFE

- Shelf life of 12 months in unopened and undamaged packages protected from moisture, water and sunlight.
- The production date is above the label.
- Once opened, sealing packages tightly won't prevent the product from solidifying. Opened packages must be consumed in a short time.

HEALTH AND SAFETY PRECAUTIONS

- Use appropriate safety equipment (mask, gloves, glasses).
- Protect your eyes and face.
- Avoid contact with skin and eyes.
- In case of contact with eyes, rinse immediately with plenty of water and consult a specialist.
- For detailed safety information, read the Material Safety Data Sheet.

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Acid-based, liquid tile cleaning material (concentrated acid)



- *Ideal for cleaning cement and lime based mortar stains and residues after tiling,*
- *Easy to apply.*

DESCRIPTION

• Acid-based and concentrated liquid, which is used to remove cement and lime based mortar stains and residues (adhesives, joint fillers, plasters and etc.) from tile surfaces.

AREAS OF USE

• Suitable for use on any format of tiles with acid resistant surfaces. It is convenient to use for removing wax residues on waxed tiles.

FEATURES

Type	: Liquid
Color	: Transparent
Ph	: < 0,3
Density	: 1,03 gr/cm ³
Freezing temperature	: 0 °C

APPLICATION PROPERTIES

Application temperature: +0 °C - +40 °C

SURFACE PREPARATION

- Prior to cleaning everything that might be affected from contact of acid either should be removed or safely covered allowing no air contact, such as marble and natural stone coverings, aluminum, inox or metal surfaces.
- Prior to application the surface should be wetted with a sponge.
- Ensure that substrate is sound and stable.
- Avoid application on extremely hot or dry ambient conditions.

APPLICATION

- **CERMINET** is supplied as a concentrated liquid. It should be pre-diluted with water due to the intensity of the stains and residues. For a standard procedure cleaning, pre-dilute one part **CERMINET** with 5 parts of water. For severe stains, use pre-diluted in the ratios gradually reduced to 1 part of **CERMINET** to 1 part of water, in case un-diluted. However, effect of the material should be pre-tested on a spare part of the cleaning surface prior to cleaning.
- Apply pre-diluted solution directly on the surface with a sponge sufficiently; making sure that the surface is fully covered.
- Wait for 5 minutes to let the solution affect and dissolve the stain and residue well. Then, rub all visible stains and residues with an abrasive sponge or brush, with care in order not to deform the tile surface.
- After rubbing, clean the solution from the surface with a sponge or by using industrial vacuum cleaner. Do not let the solution to dry on the surface, and rinse the surface thoroughly with water several times. The surface, then, should be cleaned and polished with a clean and dry cloth in circular motion.
- **CERMINET** is suitable for use with industrial cleaners. The area should be divided into small parts of 3-4 m² for cleaning. After applying the solution on the surface, it should be waited for 2-3 minutes for the solution to affect.
- Due to hazardous effect of solution, ventilate the area and avoid splashes of product during application.

PRECAUTIONS

- Application surface temperature must be above +0 °C. The surface should have no risk of freezing.
- Material is not suitable for acid sensitive surfaces, inox, aluminum and metals, polished marbles or limestone and glazed tiles. It would cause fade-out and colour deterioration, corrosion and surface deformation.
- A pre-test should be performed in a spare part of the surface to verify that the surface can be cleaned and is resistant to abrasion and acidic effect.
- It should not contact with cementitious joint fillers for long. Un-diluted solution contact may cause colour deteriorations and deformations in dark coloured grouts.
- Vaporized solution has corrosive effect and this will cause chromium plating and metal parts and surfaces to corrode and fade. Prior to application, remove or cover all parts and surfaces that might be affected safely allowing no air contact.

COVERAGE

• The approximate coverage amount (lt/m²) may vary depending on the format of stain or residue: 12-16 m²/lt.

PACKAGING

- Plastic bottles of 1 lt (10 bottles / 10 lt in a box)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 0 °C and 40 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. Do not leave exposed to direct sunlight.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- **S1/2**: KEEP OUT OF THE REACH OF CHILDREN UNDER PROTECTIVE STORAGE.
- **R20/21**: Harmful by inhalation and skin contact. • **R36/37/38**: Irritating to eyes, respiratory system and skin. • **R42/43**: May cause sensitization by inhalation and by skin contact. • **S24/S25**: Avoid contact with skin and eyes.
- **S26**: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. • **S28**: After contact with skin, wash immediately with plenty of water. • **S38/39**: In case of insufficient ventilation, wear suitable respiratory equipment. • **S45**: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). • **S46**: If swallowed, seek medical advice immediately and show the label informations.



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Surface smoothing plaster



- Ideal for smoothing surfaces for a satin look prior to painting applications,
- Excellent performance of leveling up to 3 mm on walls,
- Does not shrink or crack.

DESCRIPTION

• Cement based, easily applied surface smoothing and finishing plaster. It allows smoothing and finishing of substrates with thicknesses up to 3 mm. It is particularly suitable for preparing the substrate for paint coatings. It has a high adhesion performance on the substrate. It is resistant to outdoor conditions.

AREAS OF USE

• Suitable for use on internal and external walls and facades for plastering. It can be covered or coated with any kind of material which adheres on cementitious substrates.

FEATURES

Material content: High quality cement, additives providing improved adhesion and thick filling materials.

Type : Powder
Color : White
Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 10,0-10,5 lt water / 25 kg powder
Application thickness : 0-3 mm
Pot life : 3 hour
Application temperature : +5 °C - +35 °C
Set time (initial / for smoothing): minimum 30 minutes
(changes due to leveling thickness)
Set time (for covering / coating) : minimum 3 days
(changes due to leveling thickness)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
Resistance to thermal shocks: -30 °C - +70 °C

APPLICATION SURFACES

• Suitable for use on cement based and concrete substrates, bricks and briquette blocks.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the plaster bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates with high porosity should be primed with **CERMIFILM** before application.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before application.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- Dry substrates should be dampened before application.

MIXING

- Gradually add 8-8,4 lt (40-42%) of clean water to 20 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **CERMIFINE** evenly on the surface by using a steel trowel with a peeling move.
- 20-30 minutes after application (when the plaster completes its initial set and the surface gets dry), the plaster surface can be smoothed by using a plain steel trowel or with a damp sponge.
- If the surface dries during smoothing process, damp the surface to allow an easy application.
- While applying during windy, sunny, hot and dry weathers, damping the smoothed surface once in 2-3 hours will prevent any cracks caused by sudden setting.
- Following application must be done at least 3 days later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the plaster directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- For **CERMIFINE**, pot life and initial set time for smoothing are 3 hour and 20-30 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and plastering onto high porosity substrates). On this account, wetness of the plaster should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when plastering onto impervious or sealed surfaces.
- Expansion joints on the substrate should not be filled or plastered. Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For plastering onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFILM PLUS** is recommended.
- It is applicable to plaster on gypsum based substrates in internal areas whether primed with **CERMIFILM**.
- Cold joints between block pannels (gypsum boards, plaster boards, and etc.) might be covered with plaster (plaster poured out at 10 cm width along each side of the joint) Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move. Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.
- Before plastering in wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).



COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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Surface smoothing and repairing mortar



- *Excellent performance of leveling up to 20 mm thickness,*
- *Does not shrink or crack,*
- *Resistant to outdoor conditions.*

DESCRIPTION

• Cement based, water and humidity resistant, easily applied surface smoothing and repairing mortar with thick fillings. It allows leveling and smoothing of surface deviations, and repairing of deep cracks and surface damages with thicknesses up to 20 mm. It has a high adhesion performance on the substrate. It is resistant to outdoor conditions.

AREAS OF USE

• Suitable for use on internal and external walls and facades for plastering. It can be covered or coated with any kind of material which adheres on cementitious substrates.

FEATURES

Material content: High quality cement, additives providing improved adhesion and thick filling materials.

Type : Powder
Color : Grey / white
Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,5-5,5 lt water / 25 kg powder
Application thickness : 3-20 mm
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Set time (initial / for smoothing): minimum 30 minutes
(varies due to leveling thickness)
Set time (for covering / coating) : minimum 3 days
(varies due to leveling thickness)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
Resistance to thermal shocks: -30 °C - +70 °C

APPLICATION SURFACES

• Suitable for use on cement based and concrete substrates, bricks and briquette blocks.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the plaster bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates with high porosity should be primed with **CERMFILM** before application.
- Impervious surfaces should be primed with **CERMFILM PLUS** before application.
- The surfaces exposed to direct sunlight and have a surface temperature above +35 °C must be cooled by damping.
- Dry substrates should be dampened before application.

MIXING

• Gradually add 4,5-5,5 lt (18-22%) of clean water to 25 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.

• The compound should rest for 5 minutes prior to application and should be applied after remixing

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **CERMIMORTAR 3-20** evenly on the surface by using a steel trowel.
- 20-30 minutes after application (when the plaster completes its initial set and the surface gets dry), the plaster surface can be smoothed by using a plain steel trowel or with a damp sponge. To give a threadbare surface texture, it is recommended to use a plastic trowel.
- If the surface dries during smoothing process, damp the surface to allow an easy application.
- While applying during windy, sunny, hot and dry weathers, damping the smoothed surface once in 2-3 hours will prevent any cracks caused by sudden setting.
- Following application must be done at least 3 days later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the plaster directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- For **CERMIMORTAR 3-20**, pot life and initial set time for smoothing are 3 hour and 20-30 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and plastering onto high porosity substrates). On this account, wetness of the plaster should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when plastering onto impervious or sealed surfaces.
- Expansion joints on the substrate should not be filled or plastered. Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For plastering onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMFILM PLUS** is recommended.
- It is applicable to plaster on gypsum based substrates in internal areas whether primed with **CERMFILM**.
- Cold joints between block panels (gypsum boards, plaster boards, and etc.) might be covered with plaster (plaster poured out at 10 cm width along each side of the joint) Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the panels move. Reinforcement is embedded in the plaster, when the plaster is still wet,



as recommended by the reinforcement manufacturer.

- Before plastering in wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).
- To improve the technical performance of the plaster, it is recommended to add **CERMILATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **CERMILATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

CERMIREP R3 T



*Cement based, R3 class,
polymer modified, fine grained,
surface finishing mortar*



- *Thixotropic,*
- *High compressive strength,*
- *High adhesion strength,*
- *High mechanical strength,*
- *Durable and smooth surface after application,*
- *Resistant to water and frost,*
- *Easily prepared and applied,*
- *Non corrosive, non-toxic.*

DESCRIPTION

• Single component, cement based, polymer modified, non shrinking fine grained and finishing, repair mortar.

AREAS OF USAGE

- Structural concrete repairs of all types of reinforced concrete structure,
- Horizontal, vertical and overhead repairs,
- For exterior and interior use,
- Columns, beams and floors,
- Repairing small fractures and flakes at corners and joint edges.

PROPERTIES

- Dry Density: 1.60 ±0.1 kg/l
- Mortar Density: 2.0 ±0.1 kg/l
- Grain Size: ≤ 700 µ
- Color: Grey
- Chemical Structure: Cement based, polymer modified, powder.

TECHNICAL PERFORMANCE*

- Compressive strength 20-40 MPa (28 days 23 °C and %60 relative humidity) (EN 12190)
- Flexural Strength 5-10 MPa (28 days, 23 °C ve %60 relative humidity) (EN 196-1)
- Tensile Adhesion Strength 1,5-2,5 MPa (28 days, 23 °C ve %60 relative humidity) (EN 1542)
- Reaction to Fire A1 Class EN 13501-1
- Capillary Suction ~0.05 kg.m-2.h-0.5 (EN 13057)

*These values were obtained as a result of laboratory experiments and are the performance values of 28 days after the finished applications. Values may vary due to differences in site environment."

REFERANCE STANDARDS and APPROVALS

- TS EN 1504 - 3 / R3

APPLICATION SURFACES

- Interior and Exterior Wall; Interior and Exterior Concrete Floor; Concrete Ceiling; Cement Based Concrete Mortar and Concrete.
- Repairing small fractures and flakes at corners and joint edges.

APPLICATION CONDITIONS and LIMITS

- **CERMIREP R3 T** should be applied on all surfaces to be repaired or smoothed with a steel trowel.
- If two coats are applied, 2-3 hours should be waited between the coats.

APPLICATION PROPERTIES

- Layer thickness 3-7 mm. Thicker applications should be done in layers.
- Ambient Temperature: +5 °C min.; +35 °C max.
- Surface Temperature: +5 °C min.; +30 °C max.
- Pot Life: 23 °C ~ 30 min.

SURFACE PREPARATION

- The concrete must be premoistured (saturated surface, dry), structurally sound, clean and free from dust, dirt, oil, grease, loose or friable particles other contaminants (such as paint etc.).
- The surface should be roughened. Notch or chamfer should be made to hold the mortar on the surface.
- **CERMIREP R3 T** is applied on the **CERMIREP PASIV T** as an adherence (to increase adhesion with old concrete)

MIXING

- For a 20 kg bag 4,2-4,6 lt (21%-23%) water should be used according to the ambient conditions and purpose.
- Efficiency Approximately 12 liters of mortar is obtained with 20 kg powder material.

APPLICATION DETAILS

- With a low speed mixer (400 rpm), dry powder should be mixed in such a way that no lumps remain. Mortar, 2-3 min. rested, it should be mixed again before application.



PRECAUTIONS

- The product should be used within the pot life after mixing. Products that have reached the pot life during the application should never be used.
- No foreign materials such as lime, cement or plaster should be added to the prepared mortar. No more or less water should be added to the mixture than the amount of water indicated on the bag.
- It should not be applied on weak surfaces.
- During and after the application, the surface should be protected from air flows and contact with water should be prevented.
- It should not be applied on surfaces that are at risk of frost, frozen or melting ice within 24 hours.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Low temperatures will slow down the curing, while high temperatures will speed up the curing. In order to apply the mortar in the most efficient way, it is recommended to apply with the specified temperature range.
- Application should not be made on hot surfaces with excessive winds or direct sun, if it is necessary to apply in these environments, the environment and surface should be prepared for application before starting.
- It should not be applied in rainy weather, the applied surface should be protected from rain for 24 hours.
- Please contact our technical service for different applications."

CONSUMPTION

- Recommended consumption amount for application in roughly 2 mm thickness on 1 m² surface is 4.0-4.4 kg. This value may vary depending on the surface and ambient conditions.

PACKAGING

- 20 kg kraft sack

STORAGE and SHELF LIFE

- 12 Months in unopened packaging.
- Store in a dry area between 5 °C and 30 °C.
- Protect from direct sunlight and moisture.

HEALTH and SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), which contain chemical, safe transport, physical, ecological, toxicological, and other safety-related information.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

CERMIREP R4 T



*Cement based, R4 class
polymer modified repair mortar*



- *Thixotropic,*
- *High compressive strength,*
- *High adhesion strength,*
- *High mechanical strength,*
- *Durable,*
- *Resistant to water and frost,*
- *Easily prepared and applied ,*
- *Non corrosive, non-toxic.*

DESCRIPTION

Single component, cement based, shrinkage compensated mortar for structural repairs.

AREAS OF USAGE

- Structural concrete repairs of all types of reinforced concrete structure,
- Horizontal, vertical and overhead repairs,
- For exterior and interior use,
- Columns, beams and floors,
- Tie-rod applications,
- Repairing small fractures and flakes at corners and joint edges.

PROPERTIES

- Dry Density: 1,75 ±0,05 kg/l
- Mortar density: 2,10 ±0,10 kg/l
- Grain Size: ≤ 2000 μ
- Color: Grey
- Chemical Structure: Cement based, polymer modified grey powder.

TECHNICAL PERFORMANCE*

- Compressive Strength: 1 day; 10-25 MPa 28 days; 60-80 MPa (23 °C and 60% relative humidity) (EN-196-1)
 - Flexural Strength: ≥10 MPa (28days, 23 °C and 60% relative humidity) (EN 196-1)
 - Tensile Adhesion Strength: ≥ 2.0 MPa (28 days, 23 °C and 60% relative humidity) (EN 196-1)
 - Fire Rating: A1 (without testing)
 - Capillary Intake: ≤ 0.05kg.m⁻².h^{-0.5} (EN 13057)
- *These values were obtained as a result of laboratory experiments and are the performance values of 28 days after the finished applications. Values may vary due to differences in site environment.

REFERANCE STANDARDS and APPROVALS

- EN 1504-3 R4

APPLICATION SURFACES

- Interior and Exterior Wall; Interior and Exterior Concrete Floor; Concrete Ceiling; Cement Based Concrete Mortar and Concrete.

APPLICATION CONDITIONS and LIMITS

- **CERMIREP R4 T**, should be applied on all surfaces to be repaired using a steel trowel.
- If two coats are to be applied, the second coat should be applied not before 2 hours.

APPLICATION PROPERTIES

- Layer thickness 5-30 mm. Thicker applications should be done in layers.
- Ambient: +5 °C min.; +30 °C max.
- Surface Temperature: +5 °C min.; +30 °C max.
- Pot Life: 23 °C ~ 30 min."

SURFACE PREPARATION

- The concrete must be premoistured (saturated surface, dry), structurally sound, clean and free from dust, dirt, oil, grease, loose or friable particles other contaminants(such as paint etc.).
- The surface should be roughened. Notch or chamfer should be made to hold the mortar on the surface.
- **CERMIREP R4 T** is applied on the **CERMIREP PASIV T** as a adherence (to increase adhesion with old concrete).

MIXING

- For a 20 kg bag, 2,6-3,0 lt (13%-15%) water should be used according to the ambient conditions and purpose.
- Efficiency: approximately 11 liters of mortar is obtained with 20 kg powder material.

APPLICATION DETAILS

- With a low speed mixer (400 rpm), dry powder should be mixed in such a way that no lumps remain. Mortar should rest min 3 min and remixed before application.



PRECAUTIONS

- The product should be used within the pot life after mixing. Products that have reached the pot life during the application should never be used.
- No foreign materials such as lime, cement or plaster should be added to the prepared mortar. No more or less water should be added to the mixture than the amount of water indicated on the bag.
- It should not be applied on weak surfaces.
- During and after the application, the surface should be protected from air flows and contact with water should be prevented.
- It should not be applied on surfaces that are at risk of frost, frozen or melting ice within 24 hours.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Low temperatures will slow down the curing, while high temperatures will speed up the curing. In order to apply the mortar in the most efficient way, it is recommended to apply with the specified temperature range.
- Application should not be made on hot surfaces with excessive winds or direct sun, if it is necessary to apply in these environments, the environment and surface should be prepared for application before starting.
- It should not be applied in rainy weather, the applied surface should be protected from rain for 24 hours.
- Please contact our technical service for different applications.

CONSUMPTION

- For one coat of 1 cm, 17-20 kg/m² powder material is required. It is approximate value. Amounts may vary depending on the surface and application method.

PACKAGING

- 20 kg craft bags

STORAGE and SHELF LIFE

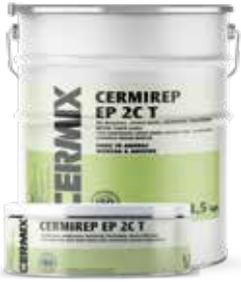
- 12 Months in unopened packaging.
- Store in a dry area between 5 °C and 30 °C.
- Protect from direct sunlight and moisture.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

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CERMIREP EP 2C T



*Two component, epoxy based,
thixotropic, repair mortar*



- *Thixotropic,*
- *High adhesion strength,*
- *High initial and ultimate final strengths,*
- *High abrasion resistance,*
- *Chemical resistance,*

- *Solvent free,*
- *Hardens without shrinkage,*
- *Impermeable to liquids and water vapour,*
- *Easy to mix and apply,*
- *Suitable for dry and damp concrete surfaces.*

DESCRIPTION

Two component, epoxy resins based and special fillers, thixotropic, solvent-free, moisture tolerant, structural repair mortar.

AREAS OF USAGE

As a structural adhesive:

- Concrete elements,
- Hard natural stone,
- Ceramics, (fibre cement) light weight concrete elements,
- Mortar, bricks, blocks, masonry etc.,
- Steel, iron, aluminium,
- Wood,
- Polyester, epoxy,
- Glass.

As a fast setting repair mortar for:

- Corners and edges,
- Hole and void filling,
- Joint edges.

Joint filling and crack sealing:

- Rigid joint filling,
- Crack filling and sealing (non moving).

PROPERTIES

- Density: 1.45 kg/l (part A+B mixed) (at +20 °C)
- Color: Cream (Part A+B mixed)
- Chemical Structure: Epoxy resin

TECHNICAL PERFORMANCE*

- Sag flow on vertical surfaces it is non-sag up to 10 mm thickness. (According to EN 1799)
- Change of volume shrinkage / Creep: Hardens without shrinkage.
- Thermal expansion coefficient W: 5.0×10^{-5} per °C (Temp. range: -20 °C to +40 °C) (According EN 1770)

• Compressive Strength	1 day	50-55 Mpa
	10 days	75-80 Mpa
• Flexural Strength	1 day	25-30 Mpa
	10 days	30-40 Mpa

Adhesion Strength

• Concrete	10 days	3-4 MPa
• Steel	10 days	8-10 MPa

*These values were obtained as a result of laboratory experiments and are the performance values of 10 days after the finished applications. Values may vary due to differences in jobsite environment.

REFERANCE STANDARDS and APPROVALS

- Tested according to EN 1504-3

APPLICATION CONDITIONS and LIMITS

- Substrate Moisture Content
- When applied to moist concrete surfaces, brush the mortar well into substrate.
- Dew point beware of condensation.
- Substrate temperature during application must be at least 3 °C above dew point.
- When using multiple units, one after the other, do not mix the following unit until the previous one has been used in order to avoid a reduction in handling time.

APPLICATION PROPERTIES

- Substrate Temperature: +5 °C min. / +30 °C max.
- Ambient Temperature: +5 °C min. / +35 °C max.
- Material Temperature: **CERMIREP EP 2C T** must be at a temperature of between +10 °C and +30 °C.
- Layer Thickness: 30 mm max.
- Set time (for light pedestrian traffic): Minimum 18 hour
- Full curing time: 7 days

SURFACE PREPARATION

Concrete, mortar, stone, bricks:

- Substrates must be sound, dry, clean and free from laitance, ice, standing water, grease, oils, old surface treatments or coatings and all loose or friable particles must be removed to achieve a laitance and contaminant free, open textured surface. Substrate Quality of mortar and concrete must be older than 28 days (depends on minimal requirement of strengths).

Steel:

- Must be cleaned and prepared by blastcleaning and vacuum. Avoid dew point conditions. Steel substrates must be de-rusted.
- **CERMIPRIME EPR 2C** primer should be applied on other surfaces such as polyester, epoxy, glass, ceramic, etc. before **CERMIREP EP 2C T** application.

MIXING

- Part A : Part B = 3 : 1 by weight or volume

APPLICATION DETAILS

- **CERMIPRIME EPR 2C** is applied on surfaces moistened with a hard brush.
- **CERMIREP EP 2C T** application is continued without waiting for drying.
- The prepared mixture is applied with a trowel or spatula.

PRECAUTIONS

- The product should be used within the pot life after mixing. Products that have reached the pot life during the application should never be used.
- No foreign materials such as lime, cement or plaster should be added to the prepared mortar. No more or less water should be added to the mixture than the amount of water indicated on the bag.
- It should not be applied on weak surfaces.
- During and after the application, the surface should be protected from air flows and contact with water should be prevented.
- It should not be applied on surfaces that are at risk of frost, frozen or melting ice within 24 hours.
- Working and reaction times of resin-based systems are affected by ambient and ground temperature and relative humidity in the air. At low temperatures, the chemical reaction slows down, this increases the usage time and the working time. High temperatures accelerate the chemical reaction and the times mentioned above decrease accordingly. For the material to complete its curing, the ambient and surface temperature must not fall below the minimum allowed value.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Low temperatures will slow down the curing, while high temperatures will speed up the curing. In order to apply the mortar in the most efficient way, it is recommended to apply with the specified temperature range.
- Application should not be made on hot surfaces with excessive winds or direct sun, if it is necessary to apply in these environments, the environment and surface should be prepared for application before starting.
- It should not be applied in rainy weather, the applied surface should be protected from rain for 24 hours.
- Please contact our technical service for different applications.

CONSUMPTION

- 1,70 kg/m² for 1mm thickness.

PACKAGING

- 6 kg (A+B) Prebatched unit, 4,5 kg +1,5 kg in a metal buckets

STORAGE and SHELF LIFE

- 24 months in unopened packaging.
- Store in a dry area between +5 °C and +30 °C.
- Protect from direct sunlight and moisture.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

CERMIREP PASIV T



Cement Based, Anti-Corrosion Primer



- High adhesion to concrete and steel,
- Resistance to water and chlorides,
- Resistant to frost dissolving salts,
- Moisture resistant,
- Non-toxic substance.

DESCRIPTION

• Single component, cement based, polymer modified primer for reinforcement protection and also a bonding bridge for **CERMIREP** repair mortars.

PROPERTIES

- Density Powder: 1,40 ±0,02 kg/l
- Fresh mortar: 2,00 ±0,10 kg/l
- Color: Grey
- Chemical Structure: Cement based, polymer modified powder.

TECHNICAL PERFORMANCE*

- Compressive Strength 40-60 MPa (28 days at 23 °C and 60% relative humidity) (TS EN 196-1)
- Tensile Strength in Bending 5-10 MPa (28 days, 23 °C and 60% relative humidity) (TS EN 196-1)
- Tensile Adhesion Strength 1.5-2.5 MPa (at 28 days, 23 °C and 60% relative humidity) (EN 1542)

*These values were obtained as a result of laboratory experiments and are the performance values of 28 days after the finished applications. Values may vary due to differences in site environment.

REFERANCE STANDARDS and APPROVALS

- EN 1504-7

APPLICATION SURFACES

• Suitable for indoor and outdoor can be applied on horizontal and vertical surfaces. It is used as an anti-corrosion primer on iron and steel reinforcement and as an adherence increasing primer on cement based surfaces.

APPLICATION PROPERTIES

- Ambient Temperature: +5 °C min.; +35 °C max.
- Surface Temperature: +5 °C min.; +30 °C max.
- Pot Life: 23 °C ~ 30 min.

SURFACE PREPARATION

• Concrete: Surfaces must be clean. Free from loose particles, dust, dirt and foreign, Surface should be pre-moistened and strong.

• Reinforcement steel: It should be clean. Free from oil, grease, rust, burr, paint or concrete ruins. All concrete, mortar and stone substrates must be sound, clean and free from oils, grease or surface contaminants. All loose materials and surface laitance must be removed by high pressure water jet blasting or similar mechanical means. Small areas and "spot" repairs should be mechanically prepared by bush hammering or similar means. The prepared substrate should be thoroughly soaked with clean water until uniformly saturated, leaving no standing water."

MIXING

- For 10 kg bag, 2,2-2,6 lt (22%-26%) water must be used.

APPLICATION DETAILS

• Add the **CERMIREP PASIV T** slowly while mixing continuously. Use a slow speed mixer (400 rpm). By gradually adding the powder in portions, the desired application consistency can be obtained. **CERMIREP PASIV T** must be mixed to be brushable.

PRECAUTIONS

- The product should be used within the pot life after mixing. Products that have reached the pot life during the application should never be used.
- No foreign materials such as lime, cement or plaster should be added to the prepared mortar. No more or less water should be added to the mixture than the amount of water indicated on the bag.
- It should not be applied on weak surfaces.
- During and after the application, the surface should be protected from air flows and contact with water should be prevented.
- It should not be applied on surfaces that are at risk of frost, frozen or melting ice within 24 hours.
- No application should be made on plastered and concrete surfaces that have not set, before the curing period of minimum 6 weeks has been completed. After applying cement based products, it should be cured with a suitable method to prevent water loss.
- Low temperatures will slow down the curing, while high temperatures will speed up the curing. In order to apply the mortar in the most efficient way, it is recommended to apply with the specified temperature range.
- Application should not be made on hot surfaces with excessive winds or direct sun, if it is necessary to apply in these environments, the environment and surface should be prepared for application before starting.
- It should not be applied in rainy weather, the applied surface should be protected from rain for 24 hours.
- Please contact our technical service for different applications."



CONSUMPTION

- Bonding Slurry for adhesion: 1,5 - 2,0 kg/m²
- Anti-corrosion Primer: 4 kg/m² for 2 mm thickness
- Efficiency: Approximately 6,5 liters of mortar is obtained with 10 kg powder material.

PACKAGING

10 kg craft bags.

STORAGE and SHELF LIFE

- 12 Months in unopened packaging. Store in a dry area between 5 °C and 30 °C.
- Protect from direct sunlight and moisture.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), for safe storage, transportation and dispose of chemical products, where chemical, physical, ecological, toxicological, and other safety-related information.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Non-shrink grout mortar with high resistance and high fluidity



- High adhesion and durability after a short time of application
- Non-shrink, water impermeable, high resistance and high fluidity

DESCRIPTION

• Non-shrink, cement-based grout mortar with high resistance and high fluidity as well as resistance to climactic conditions.

AREAS OF USE

• Suitable for use in external and internal areas in steel constructions and pre-fabricated buildings subject to dynamic impacts and requiring high resistance, assembly bases of machinery and cranes, base sockets, curtain wall and column heads, and fixation of steel columns to the base.

FEATURES

Material content: High quality cement, additives providing pressure strength, flexibility, quick-setting and improved adhesion, thick filling materials.

Type : Powder
Color : Grey
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,5-5 lt water / 25 kg powder
Pot life : Approximately 30 mn.
(Varies according to temperature.)
Application thickness : Min. 10 mm, Max. 70 mm
Waiting time between layers : 3 hours
Set time (for light pedestrian traffic): min 24 Hours (20 °C)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Compressive strength : >60 N/mm² (After 28 days)
Bending strength : >7 N/mm² (After 28 days)

APPLICATION SURFACES

• Suitable for application on cement-based screed, concrete substrates and pre-fabricated concrete in interior and exterior floors.
• Please consult us for all other application surfaces.

SURFACE PREPARATION

• The application surface should be clean and clear of any dirt, dust, grease or any contaminating barrier and weak particles.
• The application mould should be fixed, impermeable and totally clean.
• If application is to be made on existing concrete, the surface should be moistened prior to application. Small water accumulations should be avoided.
• Sufficient material should be prepared according to the working period.

MIXING

• Gradually add 4,5-5 lt (%18-20) of clean water to 25 kg of powder, and mix to a smooth and homogenous viscous compound. It is recommended to use a low cycled electrical drill mixer for mixing.
• The compound should rest for 2 minutes prior to application and should be applied then.

APPLICATION CONDITIONS

• The compound should be used at an ambient temperature range of +5 °C - +30 °C.
• Application surface temperature must be above 5 °C. The surface should have no risk of freezing.
• Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

• Pour one **CERMIGROUT** bag of 25 kg into a container with approximately 4,5-5 liters of clean water slowly and mix it with a hand mixer in low speed for about 3-4 minutes until a homogenous mixture is acquired. Avoid adding water to hardening mortar.
• **CERMIGROUT**, which is in fluid construction, should be poured from one side of the preliminarily prepared mould without interruption. In that manner, air compression shall be avoided.
• In order to ensure that all the gaps inside the mould are filled, a steel wire should be bent to form a hook and settlement should be duly performed. Vibrators should not be used in any manner.
• Large surfaces subject to outer air conditions should be protected from sunlight and wind by covering with a curing blanket for 48 hours.
• Tools and equipment should be cleaned with water when the material is still fresh after application.
• The aforementioned durations are valid for 20 °C surface and ambient temperature. The duration shall be extended in lower temperatures and shortened in high temperatures.

PRECAUTIONS

• If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
• Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
• Do not add more water into the mixture once the mixture is prepared.
• Do not apply the compound directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.

CONSUMPTION

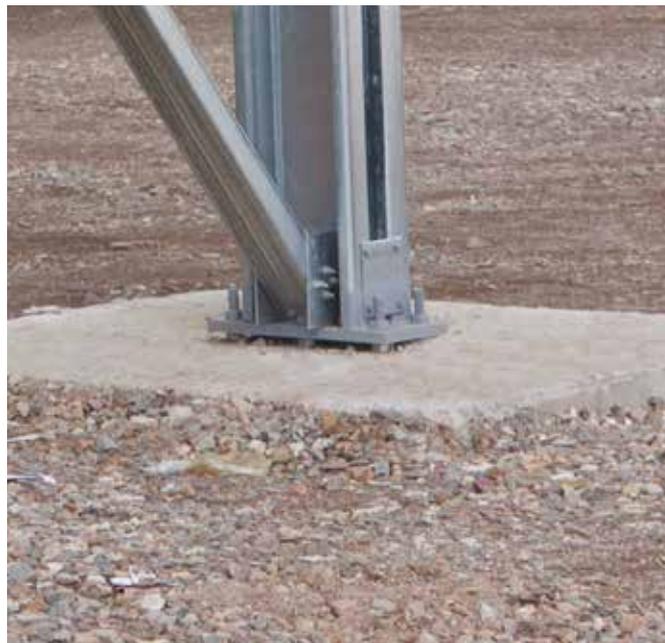
• The approximate consumption amount (kg/m²) may vary depending on the application surface deviation: 1,9 kg/m² (for 1 mm layer thickness)

PACKAGING

• Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELF LIFE

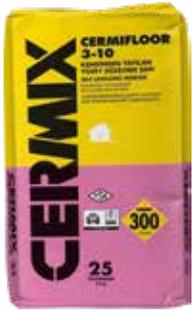
• When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 6 months from date of manufacture. Production date and charge number is displayed on the packaging.
• The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
• When not used, opened packages should be closed tightly to avoid air contact.



HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Self leveling screed



- High performance up to 10 mm thickness indoors,
- Fast and easy application with its self-leveling feature,
- Does not shrink and crack,
- High compressive strength,
- Safe use on ceramic and heated floors,
- Resistant to abrasion and dusting,
- Applied Quickly.

DESCRIPTION

• Cement based, fast drying, self leveling surface leveling and preparation mortar. It is used to correct the elevation differences on the ground surface.

AREAS OF USE

- It is used to obtain a smooth surface under PVC, linoleum, laminate-laminated parquet, wood, carpet, ceramic coating.
- Used for smoothing concrete and screed surfaces.
- It provides smoothing and leveling of existing pavement, mosaic, natural stone surfaces.
- Creates a surface resistant to abrasion and dusting on floors exposed to heavy pedestrian and cargo traffic such as warehouses and warehouses.

PROPERTIES

Material content: Powder
Color : Grey
Density : 1,3 gr/cm³

TECHNICAL PERFORMANCE*

Compressive Strength : ≥ 25 MPa (28 days)
Flexural Strength : ≥ 10 Mpa (28 days)
Temperature resistance: -30 °C - +70 °C

*These values were obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may change due to the difference in the construction site environment.

REFERENCE STANDARDS AND APPROVALS

- TS EN 13813

APPLICATION SURFACES

- Suitable for use on cement based screeds and concrete substrates.

APPLICATION PROPERTIES

Application thickness : 3-10 mm
Pot life : 1 hour
Application temperature : +5 °C - +30 °C
Ambient temperature : +5 °C - +35 °C
Set time (for tiling) : Min 6 hours
(varies due to leveling thickness)
Set time (for light pedestrian traffic): Min 24 hours
(varies due to leveling thickness)

SURFACE PREPARATION

- The application surfaces must be cured and sound. It should be free from dust, dirt, oil, etc., should be smooth, not too dry or sweating.
- Before application on polished or hardened surfaces, the hardness or gloss of the surface should be removed. It should be destroyed by methods.
- Before the application, the surface must be primed with **CERMI-FILM**.
- Before applying on non-absorbent surfaces, the surface should be primed with **CERMI-FILM PLUS** or a mixture prepared by mixing **CERMI-LATEX**.

- Before applying on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by dampening the surface with water sprinkling method.
- Broken and damaged areas on the surface should be repaired with **CERMI-MORTAR 3-20** repair mortar.

MIXING

- 25 kg of **CERMIFLOOR 3-10** is added slowly to 5.0-6.0 lt clean water and the mixture should be mixed until it is lump-free and homogeneous.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.

APPLICATION DETAILS

- The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

PRECAUTIONS

- "If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the screed directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- Prevent water puddles on wet areas, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Set time for Cermifloor 3-10 may extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- Large areas should be divided into smaller areas (rectangular areas ≤ 30 m², long edge at maximum 8 m). The joints within the divided areas function as expansion joints.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate.
- Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material.
- Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type).
- Expansion joints should be insulated by using proper profiles or mastics.
- If covered with wooden covering materials, application thickness of the leveling should be minimum 3 mm.



SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFILM PLUS** is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF**, **CERMIPROOF FF**, **CERMIPROOF FF PLUS**).

CONSUMPTION

- 1 mm thickness of coating 1.5-2.0 kg/m². The approximate coverage amount (kg/m²) may vary depending on the application surface deviation.

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- Product storage conditions should be followed, and products should not be stored in damp and wet warehouses.
- Storage ambient temperature must be above +5 °C.
- Pallets should never be placed on top of each other for storage.
- When not in use, packages must be tightly closed so that they are not airtight.
- Shelf life is 12 months, provided that the packages are kept in closed and moisture-free environments.

HEALTH AND SAFETY PRECAUTIONS

- Technical values and application instructions are the results of our tests and experiences in accordance with international standards, valid at 23 °C and 50% relative humidity.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Fiber reinforced, self leveling screed



- Excellent performance of leveling up to 30 mm for indoor floors,
- High compressive strength. Ideal for heavy load and pedestrian traffic,
- Rapid and easy application with self leveling feature,
- Does not shrink or crack,
- Suitable for applications onto existing tiles and under floor heated systems.

DESCRIPTION

• Cement based, rapid setting, fiber reinforced, self leveling surface smoothening mortar. It is suitable for leveling the floors where surface deviation is below 30 mm. Self leveling feature allows a rapid and easy application. It forms a smooth surface with resistance to abrasion and dust formation. Fiber reinforcement and its flexibility provide high compressive strength and it does not crush under heavy load.

AREAS OF USE

• Suitable for use in internal areas as a flooring screed. It is used for leveling purposes for thicknesses of 4 mm to 30 mm. It forms a smooth substrate prior to the application of covering materials (tile, carpet, parquet, PVC, vinyl, epoxy and polyurethane coatings, and etc.). It should not be used in areas exposed to humidity and water.

FEATURES

Material content: High quality cement, additives providing flexibility, quick-setting and improved adhesion, fiber reinforcement and thick filling materials.

Type : Powder
Color : Grey
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate	: 5,0-6,0 lt water / 25 kg powder
Application thickness	: 4-10 mm
Pot life	: 1 hour
Application temperature	: +5 °C - +30 °C
Set time (for tiling)	: minimum 12 hours (varies due to leveling thickness)
Set time (for light pedestrian traffic)	: minimum 24 hours (varies due to leveling thickness)
Final set time	: 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Compressive strength	
(After 1 day)	: ≥ 15,0 MPa (N/mm ²)
(After 7 days)	: ≥ 25,0 MPa (N/mm ²)
(After 28 days)	: ≥ 35,0 MPa (N/mm ²)
Bending strength	
(After 1 day)	: ≥ 3,0 MPa (N/mm ²)
(After 7 days)	: ≥ 5,0 MPa (N/mm ²)
(After 28 days)	: ≥ 7,0 MPa (N/mm ²)
Abrasion resistance	
(After 28 days)	: < 1,5 gr
Resistance to thermal shocks	: -30 °C - +70 °C

REFERENCE STANDARD

- TS EN 13813

APPLICATION SURFACES

• Suitable for use on cement based screeds and concrete substrates, existing wooden or parquet coverings, painted surfaces (polyurethane, epoxy, and acrylic).

SURFACE PREPARATION

- The substrate must be clean in order to ensure the compound bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates should be primed with **CERMIFILM** before application.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before application.
- The surfaces exposed to direct sunlight and have a surface temperature above +30 °C must be cooled by damping.
- Prior to application, the cracks and damages on the substrate should be fixed with **CERMIMORTAR 3-20** surface repairing mortar.

MIXING

- Gradually add 5,0-6,0 lt (20-24%) of clean water to 25 kg of powder, and mix to a smooth and homogenous viscous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 2 minutes prior to application and should be applied then.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **CERMIFLOOR 4-30** spreads evenly on the surface by itself when poured onto the substrate from the mixing pot. To ease application, spread the compound with forward and backward directions using a steel trowel.
- **CERMIFLOOR 4-30** is a fast setting compound. The compound should be applied fast immediately after when ready to use. When applying on a large area, the application should be done consecutively in small areas.
- When pouring the compound on the substrate, air bubbles may remain between the surface and the compound. After pouring the compound, use a spiked roller in forward and backward directions to avoid air bubbles.
- Due to self leveling feature of the compound, trowel and roller traces will disappear quickly.
- Following application must be done at least 12 hours later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the compound directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.



- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles on wet areas, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Set time for **CERMIFLOOR 4-30** may extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- Large areas should be divided into smaller areas (rectangular areas $\leq 30 \text{ m}^2$, long edge at maximum 8 m). The joints within the divided areas function as expansion joints.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- If covered with wooden covering materials, application thickness of the leveling should be minimum 3 mm.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMFILM PLUS** is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).

COVERAGE

- The approximate coverage amount (kg/m^2) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5-2,0 kg/m^2

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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Dry mortar



- Excellent performance of leveling up to 50 mm for indoor floors,
- High compressive strength. Ideal for heavy load and pedestrian traffic,
- Does not shrink or crack,
- Suitable for applications onto existing coverings and under floor heated systems.

DESCRIPTION

• Cement based dry mortar for surface smoothing. It is suitable for leveling the floors where surface deviation is below 50 mm, prior to fixing of covering materials of tiles, parquets, carpets, natural stones and etc. It allows delivering a flooring incline.

AREAS OF USE

• Suitable for use in internal areas as a flooring screed. It is used for leveling purposes for thicknesses of 10 mm to 50 mm. It forms a leveled substrate prior to the application of covering materials (tile, carpet, parquet, and etc.). It is reliable on industrial floors. It should not be used in areas exposed to humidity and water.

FEATURES

Material content: High quality cement, additives and thick filling materials.

Type : Powder
Color : Grey
Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 2,5 lt water / 25 kg powder
Application thickness : 10-50 mm
Pot life : 3 hour
Application temperature : +5 °C - +30 °C
Set time (for tiling) : minimum 48 hours
(varies due to leveling thickness)
Set time (for light pedestrian traffic) : minimum 48 hours
(varies due to leveling thickness)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

APPLICATION SURFACES

• Suitable for use on cement based screeds and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the compound bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates should be primed with **CERMIFILM** before application.
- Impervious surfaces should be primed with **CERMIFILM PLUS** before application.
- The surfaces exposed to direct sunlight and have a surface temperature above +30 °C must be cooled by damping.
- Prior to application, the cracks and damages on the substrate should be fixed with **CERMIMORTAR 3-20** surface repairing mortar.

MIXING

• Gradually add 2,5 lt (10%) of clean water to 25 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.

• The compound should rest for 2 minutes prior to application and should be applied then.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **CERMIFLOOR (10-50)** on the surface (already primed with **CERMIFILM** at a single layer.
- By using a gauge the compound is spread and compressed well, and leveled evenly on the surface. The floor incline can be applied if required.
- After leveling, cementitious emulsion acc. to manufacturers recommendations is poured onto the compound to have a stiffer screed.
- To ease in a large area application, precede the application in consecutive small areas.
- Following application must be done at least 48 hours later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the compound directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles on wet areas, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Set time for **CERMIFLOOR 10-50** may extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- Large areas should be divided into smaller areas (rectangular areas ≤ 30 m², long edge at maximum 8 m). The joints within the divided areas function as expansion joints.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- If covered with wooden covering materials, application thickness of the leveling should be minimum 3 mm.



SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **CERMIFILM PLUS** is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply waterproofing first (**CERMICRYL**, **CERMIPROOF SF** or **CERMIPROOF FF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 10 mm thickness of coating 15-20 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

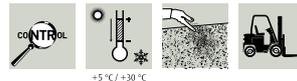
HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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Quartz aggregated surface hardener



- Probability to obtain smooth and homogeneous surface.
- Prevents corrosion against high level of mechanical loads.
- Increasing resistance against impacts.
- Delaying of the surface chalking
- Convenience for application to the bearing concrete.

DESCRIPTION

• It is ready-to-use and single-component surface hardener material that was modified by cement, quartz aggregate and additives, which increase corrosion resistance of the surface at the industrial grounds subjected to medium load and traffic.

AREAS OF USE

• Suitable for use in internal areas as a flooring screed. It is used for leveling purposes for thicknesses of 10 mm to 50 mm. It forms a leveled substrate prior to the application of covering materials (tile, carpet, parquet, and etc.). It is reliable on industrial floors. It should not be used in areas exposed to humidity and water.

TECHNICAL PERFORMANCE*

Corrosion resistance: < 3 cm³/50 cm² (TS EN 13892-3)

*These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. According to the differences in construction site, the values may change.

APPLICATION SURFACES

Floors on the Interior and exterior locations; - Ateliers, - Storages, - Car park areas, - Service stations, - Floors of the industrial buildings, - Residences, - Business places etc.

WARNINGS AND ADVICES

Water never will be spilled on the material during the application.

SURFACE PREPARATION

- The bearing concrete of the application area should be at least C25 classification.
- Surface of the fresh concrete, where the application will be made, should not be finished by steel trowel or tray trowel it should be finished by wooden trowel.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- It should be waited until the bearing concrete can be trafficable. If there is 0,5-1,5 cm foot print on the surface when you tread on the concrete it is the most appropriate time.
- The material is distributed on all surfaces through scattering method. The material should be left as they were aggregated and homogenous distribution should be provided as much as possible. Furthermore, in order to prevent decomposition of the aggregates in the product, scattering should be made to the long distances. This transaction can be made manually or by using special scattering equipment.
- It should be waited until the scattered material absorbs the water of the concrete and changes its color.

- The material that was scattered homogenously and changed its color by absorbing the water is compacted by tray finishing and integration with the concrete is provided.
- Afterwards, blade finishing is applied and this transaction is continued until the demanded brightness is obtained.

COVERAGE

- 5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

COLOR

- Grey, green and red.

APPLICATION TOOLS

- Scattering equipment, finishing tray, finishing blade, helicopter.

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact..

HEALTH AND SAFETY

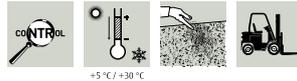
- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.



Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Basalt aggregated surface hardener



- *Probability to obtain smooth and homogeneous surface*
- *Prevents corrosion against high level of mechanical loads*
- *Increasing resistance against impacts*
- *Delaying of the surface chalking*
- *Convenience for application to the bearing concrete*

DESCRIPTION

• It is ready-to-use and single-component surface hardener material that was modified by cement, which increase corrosion resistance of the surface at the industrial grounds subjected to heavy load and heavy traffic.

AREAS OF USE

• It is applied on all floor coverings that require mechanical corrosion resistance at high level and not require chalking.

TECHNICAL PERFORMANCE*

Corrosion resistance: < 2,5 cm³/50 cm² (TS EN 13892-3)

*These values have been obtained by laboratory test results and are the performance values of the finished applications 28 days later. According to the differences in construction site, the values may change.

APPLICATION SURFACES

Floors on the Interior and exterior locations; - Ateliers, - Storages, - Car park areas, - Service stations, - Floors of the industrial buildings, - Residences, - Business Places etc.

WARNINGS AND ADVICES

Water never will be spilled on the material during the application.

SURFACE PREPARATION

- The bearing concrete of the application area should be at least C25 classification.
- Surface of the fresh concrete, where the application will be made, should not be finished by steel trowel or tray trowel it should be finished by wooden trowel.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- It should be waited until the bearing concrete can be trafficable. If there is 0,5-1,5 cm foot print on the surface when you tread on the concrete it is the most appropriate time.
- The material is distributed on all surfaces through scattering method. The material should be left as they were aggregated and homogenous distribution should be provided as much as possible. Furthermore, in order to prevent decomposition of the aggregates in the product, scattering should be made to the long distances. This transaction can be made manually or by using special scattering equipment.
- It should be waited until the scattered material absorbs the water of the concrete and changes its color.
- The material that was scattered homogenously and changed its color by absorbing the water is compacted by tray finishing and integration with the concrete is provided.
- Afterwards, blade finishing is applied and this transaction is continued until the demanded brightness is obtained.

COVERAGE

- 5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

COLOR

- Grey, green and red.

APPLICATION TOOLS

- Scattering equipment, finishing tray, finishing blade, helicopter.

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact..

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

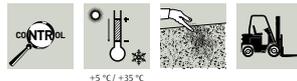


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CERMIFLOOR EP 2C



Two components, solvent-free, epoxy based, self levelling material



- *High mechanical and abrasion strength.*
- *Easily cleaned, scratch-proof, hygienic.*
- *High resistance against chemicals.*
- *Resistant to seawater, wastewaters, certain diluted acids and bases, salt solutions, fuels, mineral oils, various chemicals such as aliphatic hydrocarbons. (Detailed chemical strength may be requested from our technical department if necessary.)*

DESCRIPTION

Two components, epoxy based, colored, solvent-free, self levelling flooring material with high mechanical and chemical strength.

WHERE TO USE

Used as coating material on concrete in factories, business centers, workshops, aircraft hangars, schools, slaughter houses, showrooms, hospitals, pharmaceutical sector, food sector, laboratories, warehouses, food and food products production facilities, treatment plants, areas where heavy forklifts and corrosive chemicals are used, hygienic units; on all industrial floors where chemical and mechanical strength is required.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) of at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- First mix thoroughly component A and B separately on its own. Then add component B into component A and mix thoroughly for at least 3 minutes. Continue to mix until the mixture is homogenous. (Ratio of 80/20 by weight)
- Use mechanical mixers of at least 300-400 rpm for mixing.
- Apply to the entire surface using notched trowel at least 8 hours after epoxy based primer applied previously. Spiked roller may be used if necessary to remove air bubbles from the mixture.

CONSUMPTION

Apply **CERMIFLOOR EP 2C** to have 1,50 kg/m² for 1 m² depending on application thickness.

PACKAGING

Supplied in sets of 12,5 kg: (A: 10 kg + B: 2,5 kg)

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

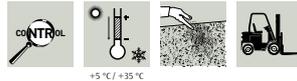
Chemical Structure:	Epoxy		
Density:	Component A+B: ~1.50 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solid Content:	~ 100% (by volume) / ~ 100% (by weight)		
Mixture Ratio (A+B):	80/20 (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 60 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 30 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Adhesion Strength	> 1,5 N/mm ² (pull off from concrete)	(ISO 4624)	
Abrasion Strength	50 mg (CS 10/1000/1000) 8 days / +23 °C	(DIN 53109 Taber Abrasion Test)	
Shore D Hardness	80 (7 days / +23 °C)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Note less than +10 °C / Not more than +30 °C		
Environment Temperature	Note less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ 4%		
	Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than 80%		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 60 minutes	
	+20 °C	~ 30 minutes	
	+30 °C	~ 15 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Surface temperature	Not Less Than	Not More Than
	+20 °C	10 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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CERMIFLOOR PU 2C



Two components, solvent-free, polyurethane based, elastic, self levelling material



+5 °C / +35 °C

- *Capability of bridging cracks because of its elastic structure (0,80-1,50 mm).*
- *Easily cleaned, scratch-proof and hygienic.*
- *Not affected by sudden changes in temperature and expansions on concrete surface.*
- *Capability of absorbing sound.*
- *Forms a jointless (monoblok) surface.*
- *Easy to apply; does not require maintenance for long periods.*
- *Limited resistance to abrasion and friction.*
- *Resistant to chemicals. (Detailed chemical resistances table may be requested if necessary.)*

DESCRIPTION

Two components, polyurethane based, solvent-free, colored, elastic, hygienic, self levelling flooring material with high mechanical strength.

WHERE TO USE

- Widely used in schools, kindergartens, universities, hospitals, physician offices, laboratories, shopping centers.
- It is also used as coating in factories, cold stores, open terraces, warehouses, cargo spaces of refrigerated trucks, workshops, aircraft hangars, pharmaceutical sector, food sector, areas with vehicle and pedestrian traffic.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) of at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- Depending on the condition of the surface, prime surfaces with epoxy based primers.
- Spraeed silica sand of approximate grain size (200-500 mm in diameter) on wet primer applied. First mix component A and B separately using a low speed (300-400 rpm) mechanical mixer.
- Then add component B into component A and mix again thoroughly for at least 3 minutes.

- Continue mixing until mixture is homogenous. (Ratio of 80/20 by weight)
- The homogenous mixture is applied on the surface and levelled by using V type notched trowel.
- Spiked roller is used to remove air bubbles from the material while it is still wet. (Consult to our technical department for details of application).

CONSUMPTION

Consumption required for 1 mm thickness is 1,40 kg/m².

PACKAGING

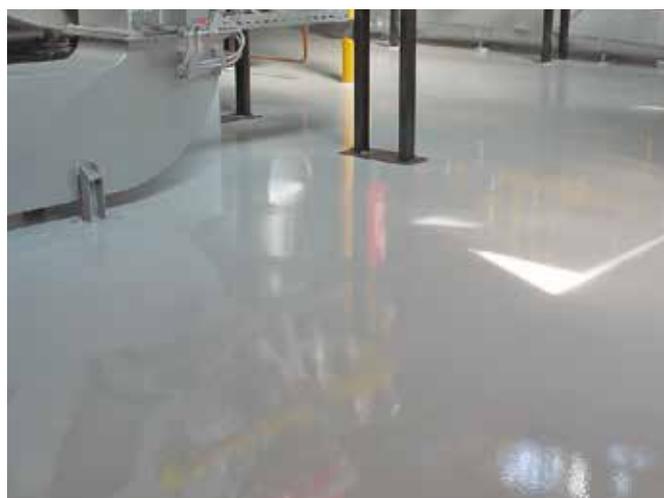
Supplied in sets of 20 kg; (A: 16 kg + B: 4 kg)

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

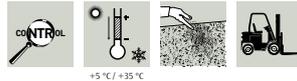
Chemical Structure:	Polyurethan		
Density:	Component A+B: ~1,40 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solids Content:	~ 100% (by volume) / ~ 100% (by weight)		
Mixture Ratio (A+B):	80/20 (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 40 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 20 N/mm ² (28 days / +23 °C)	(EN 178)	
Abrasion Strength	Mortar: 55 mg (CS 10/1000/1000)	(ASTM D 4060)	
Tensile Strength	Mortar: 12 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Tear Strength	Mortar: ~ 49 N/mm ² (28 days / +23 °C)	(DIN 53504)	
Adhesion Strength	> 1,5 N/mm ² (collapse in concrete)	(ISO 4624)	
Elongation at Break	Mortar: ~ %40 N/mm ² (14 days / +23 °C / %50 r.h)	(DIN 53504)	
Crack Bridging	0,80-1,50 mm (28 days / +23 °C)	(DIN 53504)	
Shore A Hardness	75-80 (7 days / +23 °C / %50 r.h)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Not less than +10 °C / Not more than +30 °C		
Environment Temperature	Not less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ 4% Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than 80%		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 60 minutes	
	+20 °C	~ 30 minutes	
	+30 °C	~ 15 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Temperature	Not Less Than	Not More Than
	+20 °C	10 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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CERMICOAT EP 2C



Two components, solvent-free, epoxy based coating material



- *This product has mechanical and abrasion strength.*
- *Easily cleaned, resistant against scratches and hygienic.*
- *Resistant to chemicals.*
- *It is resistant to seawater, wastewaters, certain diluted acids and bases, salt solutions, fuels, mineral oils, various chemicals such as aliphatic hydrocarbons. (Detailed chemical strength may be requested from our technical department if necessary.)*

DESCRIPTION

Two components, hygienic, easy to use, colored, easily cleaned, solvent-free epoxy based coating material with perfect abrasion and chemical strength.

WHERE TO USE

- Used as final coat on metal or concrete in factories, warehouses, shopping centers, workshops, aircraft hangars, schools, hospitals, pharmaceutical sector, water tanks, food sector, laboratories, parking areas, treatment facilities, areas where heavy forklifts and corrosive chemicals are used.
- May be used as wall coating to increase mechanical / chemical strength and also it can be applied if hygiene required for walls.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) of at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- First mix thoroughly components A and B separately on their own. Then add component B into component A and mix for at least 3 minutes until the mixture is homogenous. (Ratio of 100/100 by weight)
- Use electrical mixers of at least 300-400 rpm for mixing.
- Apply the mixture so obtained to the surface by notched trowels and finish with rollers.

CONSUMPTION

0,300-0,500 kg/m², depending on surface & concrete quality.

PACKAGING

Supplied in sets of 10 kg: (A: 8 kg + B: 2 kg)

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

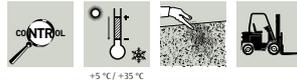
Chemical Structure:	Epoxy		
Density:	Component A+B: ~1,72 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solids Content:	~ 100% (by volume) / ~ 100% (by weight)		
Mixture Ratio (A+B):	100/100 (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 60 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 30 N/mm ² (28 days / +23 °C)	(EN 178)	
Adhesion Strength	> 1,5 N/mm ² (pull off from concrete)	(ISO 4624)	
Abrasion Strength	50 mg (CS 10/1000/1000) 8 days / +23 °C	(DIN 53109 Taber Abrasion Test)	
Shore D Hardness	80 (7 days / +23 °C)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Not less than +10 °C / Not more than +30 °C		
Environment Temperature	Not less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ %4 Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than %80		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 60 minutes	
	+20 °C	~ 30 minutes	
	+30 °C	~ 15 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Surface Temperature	Not Less Than	Not More Than
	+20 °C	10 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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CERMICOAT EP TIXO 2C



Two components, epoxy based, solvent-free, thixotropic coating material



- Easily cleaned, resistant against scratches and hygienic.
- Non-slippery surface.
- May be used on vertical surfaces also for decorative purpose.
- Orangepeel texture.

DESCRIPTION

Two components, hygienic, easy to clean, colored, economic, orange patterned, solvent-free, epoxy based thixotropic floor coating with perfect abrasion and chemical strength.

WHERE TO USE

- Used as final coat on concrete in factories, warehouses, shopping centers, workshops, aircraft hangars, schools, hospitals, pharmaceutical sector, water tanks, food sector, laboratories, parking areas, treatment plants, areas where heavy forklifts and corrosive chemicals are used.
- This product is used on ramps and on floors where non-slippery properties is required and on all floors requiring resistance to abrasives and chemicals.
- May be used as wall coating to increase mechanical / chemical strength and also it can be applied if hygiene required for walls.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) of at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- First mix thoroughly components A and B separately on their own. Then add component B into component A and mix for at least 3 minutes until the mixture is homogenous. (Ratio of 90/10 by weight) Use electrical mixers of at least 300-400 rpm for mixing.
- Apply the mixture so obtained to the surface by trowels and finish coating as required using patterned rolls. Spiked roller may be used if necessary to remove air bubbles from material while it is still wet. (Consult to our technical department for details of application.)

CHEMICAL RESISTANCE

- **CERMICOAT EP TIXO 2C** is resistant to seawater, wastewaters, certain diluted acids and bases, salt solutions, fuels, mineral oils, various chemicals such as aliphatic hydrocarbons.
- Detailed chemical strength may be requested from our technical department if necessary.

CONSUMPTION

Depending on surface quality 0,500-0,600 kg/m²

PACKAGING

Supplied in sets of 20 kg; (A: 18 kg + B: 2 kg)

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

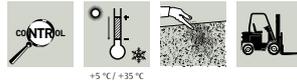
Chemical Structure:	Epoxy		
Density:	Component A+B: ~1,40 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solids Content:	~ 100% (by volume) / ~ 100% (by weight)		
Mixture Ratio (A+B):	81/19 (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 60 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 30 N/mm ² (28 days / +23 °C)	(EN 178)	
Adhesion Strength	> 1,5 N/mm ² (pull off from concrete)	(ISO 4624)	
Abrasion Strength	50 mg (CS 10/1000/1000) 8 days / +23 °C	(DIN 53109 Taber Abrasion Test)	
Shore D Hardness	70 (7 days / +23 °C)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Not less than +10 °C / Not more than +30 °C		
Environment Temperature	Not less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ %4 Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than 80%		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 2 hours	
	+20 °C	~ 40 minutes	
	+30 °C	~ 20 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Surface Temperature	Not Less Than	Not More Than
	+20 °C	12 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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CERMICOAT PU



One components, polyurethane based, final coat protecting & coating material



- *The product has mechanical and abrasion resistance.*
- *Easily cleaned, resistant against scratches, hygienic.*
- *The product is produced as mat, glossy or semi-glossy coats.*
- *Used in indoor areas.*

DESCRIPTION

One components, polyurethane based, aromatic, solvent containing, colored, final coat for protection and coating with mat, glossy or semi-glossy finishes. The product has a high abrasion and chemical resistance. Abrasion resistance and easy cleaning are the most important characteristics.

WHERE TO USE

- Used as final coat or intermediate coat of protection and coating in factories, warehouses, shopping centers, workshops, aircraft hangars, schools, hospitals, pharmaceutical sector, food sector, laboratories, parking areas and similar places.
- **CERMICOAT PU** can also be used as final coat on epoxy or polyurethane based coatings to create chemical and abrasion resistance and to have a mat, glossy or semi-glossy finishes in desired RAL colors.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) of at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- First mix thoroughly components A and B separately on their own. Then add component B into component A and mix for at least 3 minutes until the mixture is homogenous. (Ratio of 71,5/28,5 by weight) Use electrical mixers of at least 300-400 rpm for mixing. Apply the mixture so obtained to the surface by notched trowels and finish with rollers.
- Apply with airless machines to obtain a homogenous surface.

CONSUMPTION

Approximately 0,200-0,300 kg/m² for each coat.

PACKAGING

20 kg tins

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

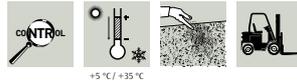
Chemical Structure:	Polyurethane		
Density:	~1,35 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solids Content:	~ 85% (by volume) / ~ 90% (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 60 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 30 N/mm ² (28 days / +23 °C)	(EN 178)	
Adhesion Strength	> 1,5 N/mm ² (pull off from concrete)	(ISO 4624)	
Abrasion Strength	40 mg (CS 10/1000/1000) 8 days / +23 °C	(DIN 53109 Taber Abrasion Test)	
Shore D Hardness	70 (7 days / +23 °C)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Not less than +10 °C / Not more than +30 °C		
Environment Temperature	Not less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ %4 Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than 80%		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 60 minutes	
	+20 °C	~ 30 minutes	
	+30 °C	~ 15 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Surface Temperature	Not Less Than	Not More Than
	+20 °C	10 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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CERMICOAT PU 2C



Two components, polyurethane based, final coat protecting & coating material



- *The product has mechanical and abrasion resistance.*
- *Easily cleaned, resistant against scratches, hygienic.*
- *The product is produced as mat, glossy or semi-glossy coats.*
- *Used in indoor areas.*

DESCRIPTION

Two components, polyurethane based, aromatic, solvent containing, colored, final coat for protection and coating with mat, glossy or semi-glossy finishes. The product has a high abrasion and chemical resistance. Abrasion resistance and easy cleaning are the most important characteristics.

WHERE TO USE

- Used as final coat or intermediate coat of protection and coating in factories, warehouses, shopping centers, workshops, aircraft hangars, schools, hospitals, pharmaceutical sector, food sector, laboratories, parking areas and similar places.
- **CERMICOAT PU 2C** can also be used as final coat on epoxy or polyurethane based coatings to create chemical and abrasion resistance and to have a mat, glossy or semi-glossy finishes in desired RAL colors.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- First mix thoroughly components A and B separately on their own. Then add component B into component A and mix for at least 3 minutes until the mixture is homogenous. (Ratio of 71,5/28,5 by weight) Use electrical mixers of at least 300-400 rpm for mixing. Apply the mixture so obtained to the surface by notched trowels and finish with rollers.
- Apply with airless machines to obtain a homogenous surface.

CONSUMPTION

Approximately 0,150-0,300 kg/m² for each coat.

PACKAGING

Supplied in sets of 16,8 kg; (A: 12 kg + B: 4,8 kg)

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

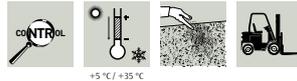
Chemical Structure:	Polyurethane		
Density:	Component A+B: ~1,35 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solids Content:	~ 85% (by volume) / ~ 90% (by weight)		
Mixture Ratio (A+B):	71,5/28,5 (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 60 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 30 N/mm ² (28 days / +23 °C)	(EN 178)	
Adhesion Strength	> 1,5 N/mm ² (pull off from concrete)	(ISO 4624)	
Abrasion Strength	40 mg (CS 10/1000/1000) 8 days / +23 °C	(DIN 53109 Taber Abrasion Test)	
Shore D Hardness	70 (7 days / +23 °C)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Not less than +10 °C / Not more than +30 °C		
Environment Temperature	Not less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ %4 Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than 80%		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 60 minutes	
	+20 °C	~ 30 minutes	
	+30 °C	~ 15 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Surface Temperature	Not Less Than	Not More Than
	+20 °C	10 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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CERMICOAT PU 2CA



Two components, polyurethane based, UV-resistant, final coat protecting and coating material



- *The product has mechanical and abrasion resistance.*
- *Easily cleaned, resistant against scratches, hygienic.*
- *Permanent glossy finishing.*
- *The product is produced as mat, glossy or semi-glossy coats.*
- *Suitable for indoor and outdoor applications.*

DESCRIPTION

Two components, polyurethane based, aliphatic (UV resistant), solvent containing, colored, final coat for protection and coating with mat, glossy or semi-glossy finishes. The product has a high abrasion and chemical resistance. Permanent glossy character and resistance to scratches are the most important characteristics.

WHERE TO USE

- Used as a final coat and coating material in factories, warehouses, shopping centers, workshops, aircraft hangars, schools, hospitals, pharmaceutical sector, food sector, laboratories, parking areas (indoor and outdoor) and similar places.
- **CERMICOAT PU 2CA** can also be used as a final coat on epoxy or polyurethane based coatings to increase chemical and abrasion resistance and to have a mat, glossy or semi-glossy finishes in desired RAL colors.
- **CERMICOAT PU 2CA** is used as a final coat in systems where a coating material resistant to atmospheric conditions, permanent color and gloss is required such as surfaces of various machinery, tanks and steel structures.

APPLICATION

a) Surface Quality

- The concrete surface must be clean and robust and have adequate compression resistance (not less than 25 N/mm²), with a tensile resistance (pull off) of at least 1,5 N/mm².
- Consequently, the concrete surface for coating must comply with not less than C25 or preferably C30 - C35 standard.
- Concrete to be coated must be strong and must not move.
- The surface must be clean and dry, and freed of all foreign objects such as soil, grease or surface curing materials.
- The unstable layer of the surface (layer of grout) must always be removed. (by Shot-Blast, Rota Tiger, etc.)
- The grout and/or concrete to be coated must rest firmly on the base and must not move.
- The substrate must absolutely not be surface hardened concrete.

b) Surface Preparation

- All concrete surfaces must be prepared to have a clear porosity by removing the cement grout using abrasive equipment.
- Remove weak concrete and fully expose blowholes and pinholes.
- Before application of the product, remove all dust, loose and detached parts from the surface using a brush and/or a vacuum cleaner.
- Roughness of the surface must be like thin plaster obtained with helicopter landing finish.
- Cut and clean cracks in the concrete in V shape, and clean the dilatation joints from particles.
- Use **CERMIPRIME EP** + Quartz mixture for repairing the surface, filling blowholes/pinholes, repairing cracks and filling dilatation joints.

METHOD OF APPLICATION

- First mix thoroughly components A and B separately on their own. Then add component B into component A and mix for at least 3 minutes until the mixture is homogenous. (Ratio of 75/25 by weight).
- Use electrical mixers of at least 300-400 rpm for mixing. Apply the mixture so obtained to the surface by notched trowels and finish with rollers.
- Apply with airless machines to obtain a homogenous surface.

CONSUMPTION

Approximately 0,100-0,150 kg/m² for each coat.

PACKAGING

Supplied in sets of 4,8 kg; (A: 4 kg + B: 0,8 kg)

STORAGE

The product may be stored for 12 months in sealed original packaging at a cool and dry place.

SAFETY MEASURES

- Due to irritating effect of uncured materials, avoid contact of components with skin or eyes. In case of any contact, wash skin or eyes with plenty of water and soap and seek medical assistance in cases of severe exposure.
- Always wear gloves and goggles during application. Avoid contact of uncured materials with foods.
- It is hazardous to approach to work area with open flame.
- Store at places out of reach of children.
- Safety Data Sheets of the materials may be provided from the technical department.
- Completely cured materials are totally safe.



TECHNICAL SPECIFICATIONS

Chemical Structure:	Polyurethane		
Density:	Component A+B: ~1,25 kg/l (at +23 °C)	(DIN EN ISO 2811-1)	
Solids Content:	~ 63% (by volume) / ~ 71% (by weight)		
Mixture Ratio (A+B):	83,4/16,6 (by weight)		
Mechanical/Physical Properties:			
Compression Strength	Mortar: ~ 60 N/mm ² (28 days / +23 °C)	(EN 196-1)	
Bending Strength	Mortar: ~ 30 N/mm ² (28 days / +23 °C)	(EN 178)	
Adhesion Strength	> 1,5 N/mm ² (pull off from concrete)	(ISO 4624)	
Abrasion Strength	50 mg (CS 10/1000/1000) 8 days / +23 °C	(DIN 53109 Taber Abrasion Test)	
Shore D Hardness	80 (7 days / +23 °C)	(DIN 53505)	
Conditions of Application:			
Surface Temperature	Not less than +10 °C / Not more than +30 °C		
Environment Temperature	Not less than +15 °C / Not more than +40 °C		
Surface Humidity Ratio	Humidity ratio ≤ %4 Test method: Measurement with HUMIDIMETER and THERMOMETER.		
Relative Humidity:	Not more than %80		
Condensation:	No condensation must occur on the surface. A film of humidity forming on the surface due to condensation prevents adhesion and the coating will be peeled off.		
Application Time:	Temperature	Time	
	+10 °C	~ 60 minutes	
	+20 °C	~ 30 minutes	
	+30 °C	~ 15 minutes	
Life of Mixture:	Temperature	Time	
	+23 °C	~ 30 minutes	
	NOTE: These tests have been performed under laboratory conditions using 200 g mixture of materials. Times are given approximate durations and will be affected by varying ambient conditions, and particularly with temperature and relative humidity.		
Waiting Time Between Coats:	Surface Temperature	Not Less Than	Not More Than
	+20 °C	10 hours	48 hours
CAUTION	For systems requiring several coats, ensure that the waiting time before applying the second coat is not more than 48 hours; otherwise the surface must be roughened if the specified time is exceeded.		

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Acetic, hygienic silicone sealant



- *Multipurpose silicone sealant,*
- *Excellent adhesion on vitrified surfaces,*
- *Does not form pores during curing,*
- *Full performance at low and high temperatures,*
- *Non sagging high durability solvent free.*

DESCRIPTION

• Single-component, general-purpose, hygienic acetic-curing silicone sealant. Suitable for sealing the joints between materials and coverings. It does not sag during or after application. It does not allow the forming of pores on the surface during curing. It impedes moulding in areas where are exposed to excessive humidity or non-ventilated. It employs its full performance and elasticity at low ($-40\text{ }^{\circ}\text{C} \leq$) or high ($\leq 100\text{ }^{\circ}\text{C}$) temperatures.

AREAS OF USE

• Suitable for indoor applications of wet areas, window and door systems, kitchens and various DIY applications.

FEATURES

Material content: Silicone
 Type : Mastic
 Color : Transparent / white
 Density : $0,98\text{ gr/cm}^3$

APPLICATION PROPERTIES

Consistency : non-sag
 Application tool : sealant gun
 Application temperature : $+5\text{ }^{\circ}\text{C} - +40\text{ }^{\circ}\text{C}$
 Set time (initial / for contact) : minimum 10 minutes
 Set time (formation of surface film) : minimum 25 minutes

TECHNICAL PERFORMANCE

Extrusion rate : $800\text{ ml/min. (23 }^{\circ}\text{C, 3 mm nozzle, 650 N/mm}^2)$
 Tensile strength : $0,6\text{ N/mm}^2$ (ISO 8339)
 Ultimate elongation : 200% (ISO 8339)
 Hardness (Shore A) : 18 (ISO 868)
 Modulus (100% flexion) : $0,36\text{ N/mm}^2$
 Tear strength : $4,0\text{ N/mm}^2$ (ISO 34 method C)
 Resistance to thermal shocks: $-40\text{ }^{\circ}\text{C} - +100\text{ }^{\circ}\text{C}$

SURFACE PREPARATION

- The surface must be clean in order to ensure the sealant bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that surfaces are mature, sound, stable and smooth, and dry.
- Impervious surfaces (glass, vitrified wares, and etc.) should be cleaned with a solvent containing cleaning material. The material should be wiped off from the surface before it dries.
- According to surface format, priming may be required to reinforce bonding.

APPLICATION

- The sides of joint should be taped for masking in order to prevent excessive sealant to contaminate rest of the surface.
- Sealant is applied by means of a sealant gun. Insert the cartridge into the sealant gun and cut off its tip diagonally considering the joint width. Apply adequate amount of sealant into the joint.
- The surface should be smoothed by using a sealant pen or spatula no later than sealant forms a skin.
- After application rip off the masking tapes. Sealant remains can be easily cleaned with a cloth when wet. When dried, sealant remains can be cleaned only mechanically.

PRECAUTIONS

- Sealant is not suitable for acid sensitive surfaces, inox, aluminum and metals, polished marbles or limestone. It would cause fade-out, colour deterioration, stains and corrosion.
- It should not contact with cementitious, EPDM, APTK and neoprene surfaces. Contact may cause colour deteriorations and deformations more noticeable in dark coloured surfaces.
- A pre-test should be performed in a spare part of the surface to verify that the surface is resistant to acidic effect.
- It is not used for bonding glazed surfaces each other.
- It is not suitable for use in aquariums for neither sealing nor bonding purposes.
- It is not paintable.
- Curing duration will be longer at low temperatures, in high humidity and low-ventilated closed areas.

COVERAGE

• The approximate coverage amount may vary depending on the application thickness: 10-12 linear meters / 310 ml cartridge.

PACKAGING

• Plastic cartridges of 310 and 280 ml (25 cartridges in a box)

STORAGE AND SHELL LIFE

• When stored unopened in a cool, dry place at temperatures above $5\text{ }^{\circ}\text{C}$, shelf life is 18 months from date of manufacture. Production date and charge number is displayed on the packaging. If the expire date has passed, the product should be intended to use due to quality control test evaluations.

• When not used, opened cartridges should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to acidic content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled during application (sealant cures with air and exposes acetic acid vapor). The area should be ventilated during application. Mask should be used if necessary.
- Do not swallow. If swallowed, immediately seek medical help.
- Keep the product out of the reach of children.



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Neutral antibacterial silicone sealant



- *Excellent adhesion on concrete, cementitious and aluminum surfaces,*
- *Ideal for professional applications,*
- *No pore formation during drying, odorless,*
- *Full performance at low and high temperatures,*
- *Non sagging high durability,*
- *Ideal for DIY applications,*
- *100% silicone*

DESCRIPTION

• Single-component, general-purpose, antibacterial neutral-curing and 100% silicone sealant. Suitable for sealing or grouting the joints between materials and coverings. It is non-corrosive and offers excellent compatibility for alkali and cement based surfaces. It does not sag during or after application. It does not allow forming of pores on the surface during curing. It impedes moulding in areas where are exposed to excessive humidity or non-ventilated. It is resistant to UV and outdoor conditions. It employs its full performance and elasticity at low ($-40\text{ °C} \leq$) or high ($\leq 150\text{ °C}$).

AREAS OF USE

• Suitable for indoor and outdoor applications of wet areas, window and door systems, kitchens and various DIY applications in cars, boats, vans and houses. It can be used for filling expansion joints for internal areas.

FEATURES

Material content: Silicone
 Type : Mastic
 Color : Transparent / white
 Density : 1,01 gr/cm³

APPLICATION PROPERTIES

Consistency : non-sag
 Application tool : sealant gun
 Application temperature : +5 °C - +40 °C
 Set time (initial / for contact) : minimum 10 minutes
 Set time (formation of surface film) : minimum 25 minutes

TECHNICAL PERFORMANCE

Extrusion rate : 300 ml/min. (23 °C, 3 mm nozzle, 650 N/mm²)
 Tensile strength : 0,7 N/mm² (ISO 8339)
 Ultimate elongation : 300% (ISO 8339)
 Hardness (Shore A) : 22 (ISO 868)
 Modulus (100% flexion) : 0,34 N/mm²
 Tear strength : 4,5 N/mm² (ISO 34 method C)
 Resistance to thermal shocks: -40 °C - +150 °C

SURFACE PREPARATION

- The surface must be clean in order to ensure the sealant bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that surfaces are mature, sound, stable and smooth, and dry.
- Impervious surfaces (glass, vitrified wares, and etc.) should be cleaned with a solvent containing cleaning material. The material should be wiped off from the surface before it dries.
- According to surface format, priming may be required to reinforce bonding.

APPLICATION

- The sides of joint should be taped for masking in order to prevent excessive sealant to contaminate rest of the surface.
- Sealant is applied by means of a sealant gun. Insert the cartridge into the sealant gun and cut off its tip diagonally considering the joint width. Apply adequate amount of sealant into the joint.
- The surface should be smoothed by using a sealant pen or spatula no later than sealant forms a skin.
- After application rip off the masking tapes. Sealant remains can be easily cleaned with a cloth when wet. When dried, sealant remains can be cleaned only mechanically.

PRECAUTIONS

- Sealant is not suitable for marbles or limestone. It would cause fade-out, colour deterioration and stains.
- It should not contact with EPDM, APTK and neoprene surfaces. Contact may cause colour deteriorations.
- A pre-test should be performed in a spare part of the surface to verify that the surface

is resistant to the sealant.

- It is not used for bonding glazed surfaces each other.
- It is not suitable for use in aquariums for neither sealing nor bonding purposes.
- It is not paintable.
- Curing duration will be longer at low temperatures, in high humidity and low-ventilated closed areas.

COVERAGE

• The approximate coverage amount may vary depending on the application thickness: 10-12 linear meters / 310 ml cartridge.

PACKAGING

- Plastic cartridges of 310 and 280 ml (25 cartridges in a box).

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 18 months from date of manufacture. Production date and charge number is displayed on the packaging. If the expire date has passed, the product should be intended to use due to quality control test evaluations.
- When not used, opened cartridges should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to acidic content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled during application (sealant cures with air and exposes acetic acid vapor). The area should be ventilated during application. Mask should be used if necessary.
- Do not swallow. If swallowed, immediately seek medical help.
- Keep the product out of the reach of children.



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Polyurethane based, one component, sealant



- Perfect aging resistant.
- Paintable (Must be tested in advance depending on the type of paint).
- Resistant to different weather conditions. (-30°C / +70°C)
- Resistant to chemicals.
- Does not contain toxic substances after curing.
- Perfect adhesion on all surfaces. (Especially epoxy primed surfaces).
- Thixotropic.

DESCRIPTION

• **CERMITHANE**, is a one component, polyurethane based sealant curing by reacting with moisture in the air. Suitable for horizontal and vertical joints. High mechanical, chemical, tensile / tearing and abrasion resistance.

AREAS OF USAGE

- Internal and external horizontal / vertical expansion joints of structures,
- Joints between prefabricated construction materials,
- In irrigation channels,
- Connection joints between wood window- and doorframes and walls,
- It is used as joint sealant in concrete, wood and metal surfaces with suitable primers,
- Connection joints between wood window- and doorframes and walls,
- For expansion joints between pre-cast concrete panels.

PROPERTIES

DEFINITION	UNIT	METHOD	PROPERTY
Chemical Structure			Polyurethane
Form			Thixotropic paste
Curing mechanism			Curing with moisture
Color			White, Grey
Density (23 °C ve 55% RH)	gr/cm ³	ASTM D792	1,25 ± 0,05
Hardness	Shore A	ASTM D2240	25-30

TECHNICAL PROPERTIES

DEFINITION	UNIT	METHOD	PROPERTY
Application Temperature	°C		+5 °C / +40 °C
Elongation at break (23 °C ve 55% RH)	%	ASTM D412	> 600
Surface Drying Time (23 °C ve 55% RH)	minutes	-	30-60
Curing Rate (23 °C ve 55% RH)	hour		24 (For min. 2 mm thickness)
Max. Joint Width	cm		4

APPLICATION

Surface Preparation

- Application surfaces should be dry and clean.
- Concrete and plaster residues should be mechanically; Oil, grease, fuel and paraffin wastes should be cleaned using chemical solvents.
- Damages and cracks must be repaired.

Primer

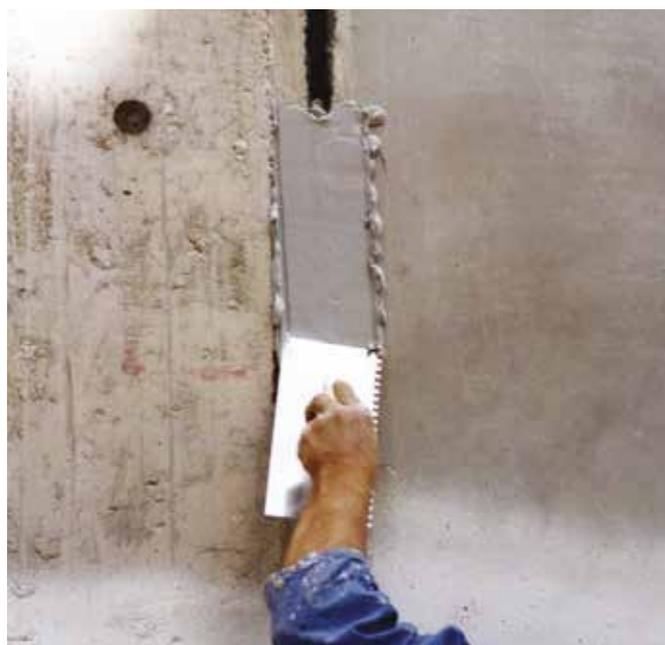
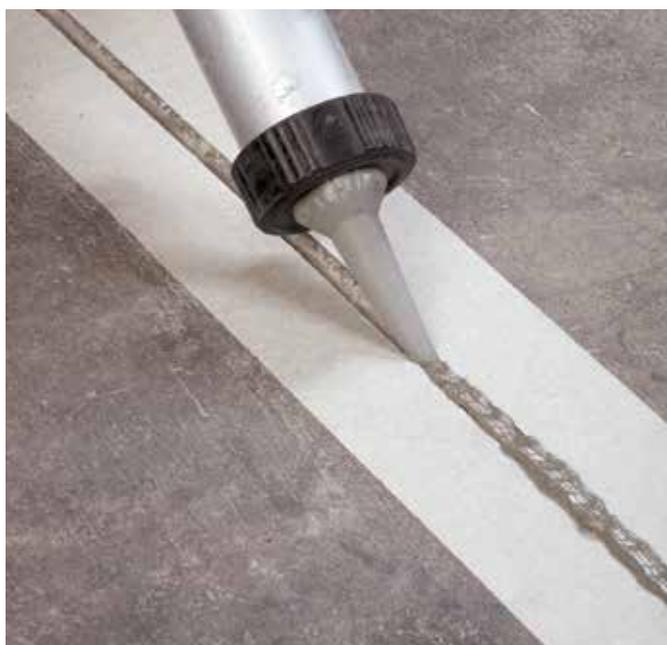
• **CERMITHANE** should be applied priming with a suitable primer based on epoxy or polyurethane after depending on the surface condition.

APPLICATIONS DETAILS

- The joints should be smooth. Everywhere of the joints should be equal thickness and the material should not overflow. Apply sealant evenly, If necessary, use masking tape and remove the tape while the sealant is still soft,
- Joint width/depth ratio should be 2:1,
- If necessary, use back up material to adjust joint depth,
- Sealants should adhere to only two surfaces of the joint: Use backer rods and bond breakers to facilitate.

CONSUMPTION

Joint Width	15 mm	20 mm	25 mm	30 mm	35 mm
Joint Depth	8 mm	10 mm	12 mm	15 mm	15 mm
Joint Length / 600 ml	5 m	3 m	2 m	1,3 m	1,1 m



PACKAGING

- 600 ml sausage packaging (white, grey).

STORAGE and SHELF LIFE

- Shelf life of 12 months in unopened and undamaged packages protected from moisture, water and sunlight.
- The production date is above the label.
- Once opened, sealing packages tightly won't prevent the product from solidifying. Opened packages must be consumed in a short time.

HEALTH AND SAFETY PRECAUTIONS

- Contains solvent, flammable.
- Keep product away from contact with open flames and do not smoke during application.
- Work only in well-ventilated areas and in open areas. Keep in mind that solvent may smell indoor.
- Wear gloves, goggles and protective clothing.
- In case of contact with skin, wash with soap and water.
- Do not swallow.
- For professional use only, keep out of the reach of children.

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MS Polymer Based Sealant



+5 °C / +35 °C

- Thixotropic,
- Low elasticity modulus,
- Does not contain solvent, silicone or isocyanate,
- High bond strength,
- Primer less adhesion on many different substrates,

- No bubble formation, even in wet and humid conditions,
- High UV resistance,
- Paintable with water based paints,
- No shrinkage.

DESCRIPTION

• MS polyurethane based, UV resistant, high elasticity modulus, solvent-free, joint filler sealant and adhesive.

AREAS OF USAGE

- Expansion and connection joints,
- Sealing of joints in prefabricated buildings,
- Movement joints in high rise buildings,
- Sealing between window and door frames,
- Insulation of window and door elements,
- Connection joints of wood and metal structures,
- Channels and canalettes,
- Cold storage depots,
- Where joints have to be painted.

PROPERTIES

- Chemical Structure: MS Polymer
- Density: 1.38 ± 0.03 gr/ml
- Appearance/Color: White or Grey
- Shore A Hardness (ISO 868): 25 ± 5

TECHNICAL PERFORMANCE

- Tack Free: Approx. 60 min (23 °C and 50% R.H.)
- Curing Rate: Approx. 2,5 mm/ 24 hr (23 °C and 50% R.H.)
- Sagging (ISO 7390): 0 mm
- E100 Modulus (ISO 8339): < 0,4 N/mm²
- Elongation at Break % (ISO 37): ≥ % 350
- Volume Loss: < -%3 (23 °C and 50% R.H.)
- Tensile Strength (ISO 37): 1.0-1.5 N/mm²

APPLICATION SURFACES

- Concrete, pre-cast concrete, fiber concrete and precast concrete boards;
- Wood, metal, aluminum, brick, ceramic, marble, glass, galvanized sheet and various plastic surfaces

APPLICATION CONDITIONS and LIMITS

- Surface and ambient temperature between + 5 °C and + 40 °C.
- Avoid application in very humid and / or very hot weather.
- Heat Resistance is between -40 °C and + 90 °C.
- Should not be applied on substrates which are frozen, melting or have the risk of frost within 24 hours.

SURFACE PREPARATION

- The joint gaps should be dry and clean, and remove any cement, oil, adhesive and paint residues.
- There should not be any coating material on nonporous surfaces such as glass and metal, if necessary, it should be cleaned with cellulosic thinner as a pretreatment. In addition, metal floors should be subjected to an anti-rust treatment.
- Masking tape is recommended on sensitive surfaces and in case of a smooth and sharp edge requirement.

APPLICATION DETAILS

- **CERMITHANE MS** can be applied without primer application. If not sure, we recommend a preliminary compatibility test.
- Before the application, the tip of the cartridges is cut and a plastic cap is fixed.
- The tip of the cap is cut according to the width of the surface and fixed to the cartridge gun.

- The sausage package is cut from one edge and fixed to a suitable gun. Then the cap nut is screwed to the cylinder of the gun.
- The joints should be filled at one time and without gaps during the application.
- The surface of Cermithane Hybrid applied in the joints should be smoothed with a dampened spatula, glazing tool, joint iron or by hand immediately.
- If used, the adhesive tape should be removed afterwards.
- Contaminated areas and used tools can be cleaned with industrial gasoline or alcohol before curing.
- After curing is completed, it can only be cleaned mechanically.

PRECAUTIONS

- After application, the surface should be protected from water, rain, raw, snow, hail and so on until it is fully dry.
- The opened packages should be consumed as quickly as possible.

CONSUMPTION

Joint Width x Joint Depth (mm)	Consumption (ml/m)	Sealing for 600 ml sausage package (mm)
10x10	100	6,0
15x10	150	3,9
20x10	200	3,0
25x12	300	2,0
30x15	450	1,3

PACKAGING

600 and 290 ml sausage.

STORAGE and SHELF LIFE

- Shelf life of 12 months in unopened and undamaged packages protected from moisture, water and sunlight.
- The production date is above the label.
- Once opened, sealing packages tightly won't prevent the product from solidifying. Opened packages must be consumed in a short time.

HEALTH and SAFETY PRECAUTIONS

- Use appropriate safety equipment (mask, gloves, glasses).
- Protect your eyes and face.
- Avoid contact with skin and eyes.
- In case of contact with eyes, rinse immediately with plenty of water and consult a specialist.
- For detailed safety information, read the Material Safety Data Sheet.

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CERMITHANE HYBRID



Hybrid Polymer Based Sealant



- Thixotropic,
- Low elasticity modulus,
- Does not contain solvent, silicone or isocyanate,
- High bond strength,
- Primer less adhesion on many different substrates,

- No bubble formation, even in wet and humid conditions,
- High UV resistance,
- Paintable with water based paints,
- No shrinkage.

DESCRIPTION

• Hybrid polyurethane based, UV resistant, high elasticity modulus, solvent-free, joint filler sealant and adhesive.

AREAS OF USAGE

- Expansion and connection joints,
- Sealing of joints in prefabricated buildings,
- Movement joints in high rise buildings,
- Sealing between window and door frames,
- Insulation of window and door elements,
- Connection joints of wood and metal structures,
- Channels and canalettes,
- Cold storage depots,
- Where joints have to be painted.

PROPERTIES

- Chemical Structure: Hybrid Polymer
- Density: 1.38 ± 0.03 gr/ml
- Appearance/Color: White or Grey
- Shore A Hardness (ISO 868): 25 ± 5

TECHNICAL PERFORMANCE

- Tack Free: Approx. 60 min (23 °C and 50% R.H.)
- Curing Rate: Approx. 2,5 mm/ 24 hr (23 °C and 50% R.H.)
- Sagging (ISO 7390): 0 mm
- E100 Modulus (ISO 8339): < 0,4 N/mm²
- Elongation at Break % (ISO 37): ≥ 350
- Volume Loss: < -%3 (23 °C and 50% R.H.)
- Tensile Strength (ISO 37): 1.0-1.5 N/mm²

APPLICATION SURFACES

- Concrete, pre-cast concrete, fiber concrete and precast concrete boards;
- Wood, metal, aluminum, brick, ceramic, marble, glass, galvanized sheet and various plastic surfaces

APPLICATION CONDITIONS and LIMITS

- Surface and ambient temperature between + 5 °C and + 40 °C.
- Avoid application in very humid and / or very hot weather.
- Heat Resistance is between -40 °C and + 90 °C.
- Should not be applied on substrates which are frozen, melting or have the risk of frost within 24 hours.

SURFACE PREPARATION

- The joint gaps should be dry and clean, and remove any cement, oil, adhesive and paint residues.
- There should not be any coating material on nonporous surfaces such as glass and metal, if necessary, it should be cleaned with cellulosic thinner as a pretreatment. In addition, metal floors should be subjected to an anti-rust treatment.
- Masking tape is recommended on sensitive surfaces and in case of a smooth and sharp edge requirement.

APPLICATION DETAILS

- **CERMITHANE HYBRID** can be applied without primer application. If not sure, we recommend a preliminary compatibility test.
- Before the application, the tip of the cartridges is cut and a plastic cap is fixed.
- The tip of the cap is cut according to the width of the surface and fixed to the cartridge gun.

- The sausage package is cut from one edge and fixed to a suitable gun. Then the cap nut is screwed to the cylinder of the gun.
- The joints should be filled at one time and without gaps during the application.
- The surface of Cermithane Hybrid applied in the joints should be smoothed with a dampened spatula, glazing tool, joint iron or by hand immediately.
- If used, the adhesive tape should be removed afterwards.
- Contaminated areas and used tools can be cleaned with industrial gasoline or alcohol before curing.
- After curing is completed, it can only be cleaned mechanically.

PRECAUTIONS

- After application, the surface should be protected from water, rain, raw, snow, hail and so on until it is fully dry.
- The opened packages should be consumed as quickly as possible.

CONSUMPTION

Joint Width x Joint Depth (mm)	Consumption (ml/m)	Sealing for 600 ml sausage package (mm)
10x10	100	6,0
15x10	150	3,9
20x10	200	3,0
25x12	300	2,0
30x15	450	1,3

PACKAGING

600 ml sausage.

STORAGE and SHELF LIFE

- Shelf life of 12 months in unopened and undamaged packages protected from moisture, water and sunlight.
- The production date is above the label.
- Once opened, sealing packages tightly won't prevent the product from solidifying. Opened packages must be consumed in a short time.

HEALTH and SAFETY PRECAUTIONS

- Use appropriate safety equipment (mask, gloves, glasses).
- Protect your eyes and face.
- Avoid contact with skin and eyes.
- In case of contact with eyes, rinse immediately with plenty of water and consult a specialist.
- For detailed safety information, read the Material Safety Data Sheet.

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Acrylic sealant



- *Paintable,*
- *Long term flexibility,*
- *Resistant to water, wind and moisture,*
- *Easy to apply and clean,*
- *Water-proof after curing,*
- *No odour.*

DESCRIPTION

One-component general purpose acrylic sealant that can be used in indoor and outdoor environments, combination of building materials and cracks.

AREAS OF USAGE

- Sealing of low movement joints between various construction materials such as wood, PVC, concrete, brick, etc.
- Filling cracks in walls and on ceilings.
- Sealing joints between windows, walls, doors and static joints.

PROPERTIES

Chemical Structure: Acrylic Dispersion
Consistency : Consistency
pH : 7-9
Density : 1,62 ±0,03 gr/cm³
Shore A hardness : 40-70 Shore A

TECHNICAL PERFORMANCE

Ultimate elongation : 100% (ASTM D412)
Temperature resistance: -10 °C to +80 °C
Tack-Free time : 50 ± 20 min (23 °C and 50% R.H)
Curing rate : 2 mm/day (23 °C and 50% R.H)

APPLICATION SURFACES

- Interior and Exterior Wall; Concrete,
- Interior and Exterior Floor; Concrete,
- Ceiling; Cement Based Mortar and Concrete,
- Repairing small fractures and flakes at corners and joint edges.

APPLICATION CONDITIONS AND LIMITS

- Joint width: 5-25mm.
- Joint depth/width: 1 to 2.
- Application temperature: +5 °C and +40 °C.
- Immediately after the application, smooth the sealant at once with wet finger or a wet tool.

SURFACE PREPARATION

- The joints must be clean and free from dust, grease and rust.
- A primer (mixture of one part acrylic sealant and 4-5 parts of water) can be applied on porous surfaces such as concrete, stone, cement and plaster.

PRECAUTIONS

- Keep the sealed joint dry for two hours at least.
- Cured sealant can be removed mechanically.
- Should not be used for sealing joints permanently exposed to water.
- Not be applied in case of risk of rain or frost.
- Elastoplastic sealant so it should not be used in high movement joints.
- Painted with paints that are sufficiently elastic.

PACKAGING

310 ml cartridge or 600ml sausage.

STORAGE AND SHELF LIFE

- 18 months in unopened packaging. Store in a dry area between +5 °C and +30 °C.
- Protect from direct sunlight and moisture.

HEALTH AND SAFETY PRECAUTIONS

- Users should refer to the product safety data sheet (MSDS), which contain chemical, safe transport, physical, ecological, toxicological, and other safety-related information.

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CERMITHANE PC 2C



Two Components, Polyurethane Based, Coal Tar Modified Joint Filler Sealant



- Excellent adhesion,
- Elastic (600%),
- Suitable for outdoor applications and UV resistant,
- Paintable,
- Resistant to different weather conditions. (-30 °C / +120 °C),
- Create smooth surface,
- Resistant to jet fuels.

DESCRIPTION

CERMITHANE PC 2C is polyurethane based two components coal tar modified sealant. Self leveling, suitable for heavy traffic and has resistance to surface movements. Does not affect from sea water, jet fuels, hydraulic materials, oil.

FIELDS of APPLICATION

• Internal and external horizontal / vertical expansion joints, • In horizontal and vertical expansion dilatations between prefabricated elements • Airport fields (running tracks), • Park, Bus station, • Gas station, • Highways, • Petrochemical and other industry facilities (their roads and concrete fields), • Airports, highways, bridges for crack fillings.

PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Color			Black
Specific Gravity (23 °C ve 55% RH)	gr/cm ³	ASTM D792	1.40 ±0.05
Hardness (7 day)	Shore A	ASTM D2240	15-20

TECHNICAL PROPERTIES

PROPERTY	UNIT	METHOD	SPECIFICATION
Extrusion	°C		+5°C/+30°C
Elongation (23 °C ve 55% RH)	g/min	ASTM C1183	40
Hardness (7 day)	%	ASTM D214	> 600
Hardening time (23 °C ve 55% RH)	hour	-	24 (For 2-3 mm thick)

APPLICATION

Surface Preparation

• The application surfaces should be dry and clean. • Cementitious residues can be removed mechanically; oil, grease, fuel and paraffin residues can be cleaned with chemical solvents. • Damaged coatings, unlevelled surfaces and cracks should be repaired with suitable products. • After repairing, the surface can be primed with EP or PU based primers depending on the need; then the application of **CERMITHANE PC 2C** should be started.

Mixing

• The mixing time of the two components should be taken into account and prepared at the specified mixing rate until the amount to be consumed. • Surface temperature must be +5 °C. • The A component should be stirred quickly with a mechanical mixer, adding the hardener (component B) to the mixing ratio. • Components A and B should be mixed with a mechanical mixer for at least 3 minutes until homogenous. • The mixture of the material should be made with a special mixing device and tip which does not exceed 300-400 d/d and it should not be mixed with high speed drill.

Primer Application

• **CERMITHANE PC 2C** can be applied without primer. • Also **CERMIPRIME PLUS PU** increased surface adhesion so can be used primer. • **CERMITHANE PC 2C** is applied after 15 minutes of **CERMIPRIME PLUS PU**. • **CERMITHANE PC 2C** cannot be applied if after 24 hours of dried **CERMIPRIME PLUS PU** application.

Application

• The applied material should be protected against water and rain, external factors and mechanical stresses until it cures.

• By using backing rod, the consumption of **CERMITHANE PC 2C** is prevented from sticking to the joints. The size of the backing rod must be greater than 20% to 25% of the joint diameter. • Joint width and depth should not be less than 5mm.

Cleaning of Tools

• Cleaning of tools can be cleaned with ethyl acetate or other suitable solvents, before curing **CERMIPRIME PU PLUS**. • Dried materials can only be cleaned with mechanical applications.

PRECAUTIONS

• It should not be applied in closed areas due to long-term solvent odor or the environment should be well ventilated. • In cold weather, packaging must be kept at least 24 hours +15 °C before application. • There should be no water vapor pressure on the surfaces to be applied on. In such a case, special insulation should be applied before the application. • After application, the surface should be protected from water, rain, raw, snow, hail and so on until it is fully dry. • When opened packages are tightly closed, the inside of the product will freeze quickly so that the opened cans will be consumed. • Full mechanical and chemical resistance is achieved in 7 days.

PACKAGING

• 10+2 kg = 12 kg (A/B) set

STORAGE and SHELF LIFE

• Store in cool and dry conditions protected from frost. • In short-term storage, maximum 2 palettes can be stored on top of each other and delivery must be done according to first in first out system. • In long-term storage, do not store palettes on top of each other. • Packaging should be stored upright. • 12 months after the production date under appropriate storing conditions, and ambient temperature between +15 °C / + 25°C, protected from moisture, water and sunlight.

HEALTH and SAFETY PRECAUTIONS

• Do not approach with open flame and do not smoke during application. • Wear gloves, goggles and protective clothing. • In case of contact with skin, wash with soap and water. • Do not swallow, do not use empty packages for food storage and do not dispose of in a fire. • For professional use only, keep out of reach of children. • Please look at the Material Safety Data Sheet for detailed information.

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AREAS OF USE

			TILE ADHESIVE			
			CERMICOL EXTRA	CERMICOL SUPER	CERMIFLEX	CERMIGRES
TILE FORMAT	CERAMIC TILE (FOR WALLS)		≤ 33x33 cm	≤ 33x33 cm	< 30x60 cm*	< 30x60 cm*
	CERAMIC TILE (FOR FLOORS)		≤ 33x33 cm	≤ 33x33 cm	< 30x60 cm*	< 30x60 cm*
	PORCELAIN TILE				< 30x60 cm*	< 30x60 cm*
	GLASS TILE / MOSAIC				< 30x60 cm*	< 30x60 cm*
	GRANITE TILE				< 30x60 cm*	< 30x60 cm*
	MARBLE & NATURAL STONE				< 30x60 cm*	< 30x60 cm*
	THERMAL INSULATION BOARD				≤ 60x120 cm	≤ 60x120 cm
	POOL TILE					
APPLICATION AREA	INTERIOR	FLOORS	●	●	●	●
		WALLS	●	●	●	●
	EXTORIOR	FLOORS			●	●
		WALLS			●	●
	WET AREA & BATHROOM		●	●	●	●
	KITCHEN		●	●	●	●
	TURKISH BATH & SAUNA				●	●
	UNDER FLOOR HEATED SYSTEM				●	●
	WALK WAY				●	●
	TERRACE				●	●
	PARKING AREA				○○○	○○○
	INDUSTRIAL AREA & FLOORS				○○○	○○○
	SHOPPING CENTER				●	●
	HOSPITAL				●	●
	BOUTIQUE POOL				●	●
	THERMAL POOL				○○○	○○○
SWIMMING POOL				○○○	○○○	
SUBSTRATE	EXISTING TILE / MOSAIC				○○	○○
	GYPSUM (PANNEL & PLASTERS & BLOCK)		○	○	○	○
	CONCRETE				○	○
	TIMBER (OSB & CHIPBOARD)					
	CEMENTITIOUS CHIPBOARDS					
	LIME BASED PLASTER					
	CEMENT BASED SCREED		●	●	●	●
	CEMENT BASED PLASTER		●	●	●	●
	PLASTERED THERMAL INSULATION BOARD				●	●
	ACRYLIC BASED PAINT		○○	○○	○○	○○

- Applicable.
- Substrate should be primed with **CERMIFILM** adhesion primer.
- Substrate should be primed with **CERMIFILM PLUS** high performance adhesion primer.
- **CERMILATEX** performance improving additive should be added into the adhesive.

< 30x60 cm* Applicable for tile sizes ≤ 60 x 60 cm when **CERMILATEX** performance improving additive is added into the adhesive.

CERMIGRANIT	CERMIPLUS	CERMIPOOL	CERMIPLUS RAPID	CERMIPLUS XL	CERMIFIX HP	CERMIFIX PU 2C
< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 60x60 cm	< 30x60 cm	
< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 60x60 cm	< 30x60 cm	< 60x60 cm
< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 60x60 cm	< 30x60 cm	< 60x60 cm
< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 60x60 cm	< 30x60 cm	< 60x60 cm
< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 60x60 cm		< 60x60 cm
< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 60x60 cm		< 60x60 cm
≤ 60x120 cm	≤ 60x120 cm	≤ 60x120 cm	≤ 60x120 cm	≤ 60x60 cm	< 30x60 cm	< 60x60 cm
		< 30x60 cm*		≤ 60x60 cm		
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●		●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●		●
●	●	●	●	●		●
●	●	●	●	●		●
○○○	○○○	○○○	○○○	●		●
○○○	○○○	○○○		●		●
●	●	●	●	●		●
●	●	●	●	●		●
●	●	●		●		
○○○	○○○	●		●		
○○○	○○○	●		●		
○○	○○	○○	○○	●	●	●
○	○	○	○	○	●	●
○	○	○	○	●	●	●
					●	●
					●	●
					●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●		
○○	○○	○○	○○	○○	○○	●

JOINT FILLERS						
		CERMIJOINT 1-6 EXTRA	CERMIJOINT 0-3 FLEX	CERMIJOINT 3-10 FLEX	CERMIJOINT 2-10 HRC	CERMIJOINT EPOSOL PRO
TILE FORMAT	CERAMIC TILE (FOR WALLS)	●	●	●	●	●
	CERAMIC TILE (FOR FLOORS)	●	●	●	●	●
	PORCELAIN TILE		●	●	●	●
	GLASS TILE / MOSAIC		●			●
	GRANITE TILE		●	●	●	●
	MARBLE & NATURAL STONE		●	●	●	
	POOL TILE				●	●
	METAL TILE					●
APPLICATION AREA	JOINT WIDTH	1-6 mm	0-3 mm	3-10 mm	2-10 mm	2-12 mm
	INTERIOR (FLOORS & WALLS)	●	●	●	●	●
	EXTERIOR (FLOORS & WALLS)		●	●	●	●
	WET AREA & BATHROOM		●	●	●	
	KITCHEN		●	●	●	●
	TURKISH BATH & SAUNA				●	●
	WALK WAY & GARDEN WALLS		●	●	●	
	TERRACE		●	●	●	●
	PARKING AREA				●	●
	INDUSTRIAL AREA & FLOORS				●	●
	INDUSTRIAL KITCHEN				●	●
	SHOPPING CENTER		●	●	●	●
	HOSPITAL		●	●	●	●
	BOUTIQUE POOL				●	●
	THERMAL POOL				●	●
	SWIMMING POOL					●
	FLEXIBLE FLOORS (WOODEN & STEEL CONSTRUCTION)		●	●	●	
	LABORATORY				●	●
FOOD FACTORY					●	

● Applicable.

WATERPROOFING MATERIALS						
		CERMICRYL	CERMIPROOF SF	CERMIPROOF FF	CERMIPROOF FF PLUS	CERMIPROOF UV
APPLICATION AREA	FOUNDATION, CURTAIN, BASEMENT WALLS					●
	DRINKABLE WATER TANK				●	
	WATER TANK	●	●	●	●	●
	WET AREA & BATHROOM	●	●	●	●	●
	KITCHEN	●	●	●	●	●
	TURKISH BATH & SAUNA	●	●	●	●	
	TERRACE			●	●	
	BOUTIQUE POOL			●	●	●
	THERMAL POOL				●	
	SWIMMING POOL				●	
	EXTERNAL FAÇADE					
	GARDEN WALLS					
	AREA < 300 m ²	●	●	●		
	AREA > 300 m ²				●	

● Applicable.

Koramic Construction Chemicals

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Koramic Building Chemicals
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