



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/cm³

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 : $\geq 1,0$ 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 (20 mins): $\geq 0,5$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Resistance to thermal shocks : -30 °C - +70 °C
Resistance to alkalies : 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.

REFERENCE 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 smoothened 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 >40x40 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 3600 cm² (60x60 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 **CERMIGRANIT** 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 water proofing 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
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.

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