# POLYAC® 14

**FLEXIBLE, VERY FAST CURING, PMMA BASED, POLYVALENT PRIMER FOR POLYAC® SYSTEMS**



## DESCRIPTION

POLYAC® 14 is a polyvalent, flexible, very fast curing, PMMA (Polymethyl methacrylate) based primer for the POLYAC® systems, to be applied on slightly damaged concrete with small cracks and fissures, wood, composite materials, asphalt, bituminous membranes and various other plastics .

## BENEFITS

- Flexible
- High reactivity
- Fast curing
- Applicable at low temperature
- Optimal viscosity
- Widely applicable
- Can be applied horizontally and vertically
- Optimized polymerization under difficult conditions
- Can be applied with roller or brush

## FIELD OF APPLICATION

POLYAC® 14 is a flexible, polyvalent primer for the POLYAC® floor, membrane and other POLYAC® systems that are applied on slightly damaged concrete, with small cracks, asphalt and bituminous membranes. The primer has excellent adhesion and can be applied at temperatures below freezing thanks to its rapid reaction and good reactivity. POLYAC® 14 can be used as concrete protection and the broadcasted variant can be used as a fast primer for epoxy and polyurethane floor systems.

## APPLICATION

**Note:** The following is a typical application description. In case of other jobsite parameters, please contact our technical department.

### PRELIMINARY ANALYSES

Before starting the substrate preparation and applying the products, it is important to test various parameters in order to achieve a good and sustainable result.
Compressive strength of the substrate: min. 25 N/mm².
Tensile strength of the substrate: min. 1,5 N/mm²
POLYAC® 14 must be applied a dry surface. Moisture content in the substrate: ≤ 5 % moisture.
Conditions during the application and curing: see "Application conditions" further described in this technical data sheet.
Technically studied dilatation joints must be provided. These are resumed in the synthetic resin system to be installed.
The flatness of the surface must be consistent with the desired requirements. Should this not be the case, correct measures must be taken to fill in or smooth out the unevenness with products that are complementary to the substrate and to the synthetic resin system to be installed.
Shrink joints and passive cracks can be coated. This on condition that they are not used as dilatation joints or not following other movements of the structure and the substrate and that they are flattened with products that are complementary to the substrate and to the synthetic resin system to be installed.

### REQUIRED TOOLS

- Mixer with spindle (min. 300 rpm)
- Spatula or rubber squeege.
- Brush or paint roller suitable for synthetic resin-based products.
- Masking tape

### PREPARATION OF THE SUBSTRATE

Cracks, joints and other parts that show water leaks must first be made completely water-tight and leak-proof.
The surface must be mechanically pre-treated. this can be achieved by removing the dust by bullet- or sandblasting or by grinding the surface. Tiles are to be degreased well and grinded with a diamond blade. These treatments ensure that an open texture surface is obtained, to remove the cement laitance from concrete and old remnants of coatings and adhesives.
High pressure water jetting is possible but then the surface must dry sufficiently (moisture content in the substrate: ≤ 5 % moisture) before applying the primer.
Always apply the products on a clean surface, free from adhesion reducing materials such as dirt, oil, grease, old coatings or surface treatments, ...
The parts of the surfaces to be coated that do not meet the requirements as described above (compressive strength, tensile strength, parts that are not well connected, ...) must be treated or removed and repaired according to a correct method and with products that are complementary to the substrate and the synthetic resin system to be installed. Remove any loose parts by brushing properly and remove dust with an industrial vacuum cleaner.

### PREPARATION OF THE PRODUCT

Mix POLYAC® 14 well before use. Paraffin can separate during storage. Dispense an amount of resin that can be processed within 15 minutes. Add 1 to 5 % curing powder. POLYAC® CATALYST must be ordered separately.

| Add POLYAC® CATALYST to POLYAC® 14 | | |
|---|---|---|
| Temp. | In % | POLYAC® CATALYST per 1 kg POLYAC® 14 |
| 0 °C | 5 % | 50 g |
| 5 °C | 4 % | 40 g |
| 10 °C | 3 % | 30 g |
| 20 °C | 2 % | 20 g |
| 30 °C | 1 % | 10 g |

Mix until the powder is completely dissolved.

### PREPARATION OF THE EQUIPMENT

Always work with clean mixing containers and application material.

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## APPLICATION

POLYAC® 14 is evenly distributed with a spatula or rubber squeegee and a short-haired paint roller. Apply enough primer to create a tight coat with full coverage. Apply a second coat of POLYAC® 14 on highly porous surfaces. Extra mechanical adhesion can be obtained by broadcasting Fire-dried natural quartz sand with grain size 0.2 to 0.8 mm into the still wet primer at a coverage rate of 0.3 to 0.5 kg/m². Polyurethane and epoxy systems can only be applied on a broadcasted POLYAC® 14 primer. Note: Do not disturb the paraffin layer that occurs during curing.

## FINISHING

The cured primer layer can be overcoated after one hour (+20 °C) with the POLYAC® system to be installed.

## APPLICATION CONDITIONS

Conditions during the application and curing of the products.
Concrete should be at least 28 days old.
The recommended processing temperature for substrate, environment, material and products is between +5 °C and +35 °C. For temperatures lower than +5 °C please contact RESIPLAST NV.
Relative humidity: Max. 85 %
Dew point: The temperature of the substrate and of the not fully cured product must be at least 3 °C higher than the dew point. Avoid condensation on the surface from the moment that the preparations start until the complete curing of the products. Ensure adequate ventilation and a low relative humidity during curing.

## CLEANING AND MAINTENANCE

Clean the used tools with SOLVENT MEK or ethyl acetate before the curing of POLYAC® 14. Cured products residues must be removed mechanically.
For the cleaning and maintenance of the installed synthetic resin system, please refer to the information leaflets:
Cleaning and maintenance of synthetic resin floor systems - INDUSTRY
Cleaning and maintenance of synthetic resin floor systems - PUBLIC AND PRIVATE BUILDINGS.

## COMPLIMENTARY PRODUCTS

- Cleaning solvent for tools: SOLVENT MEK or ethyl acetate
- POLYAC® CATALYST

## ADVICE / FOCAL POINTS

As primer on a contaminated surface:
First perform an adhesion and hardening test.
After the substrate preparation, take a small amount of POLYAC® 14. Add 3 % of POLYAC® CATALYST. Mix until the powder is completely dissolved. Pour the mixture in a large layer over the surface and let it cure completely. Test the adhesion by separating the primer from the surface with a hammer and chisel. With a sticky or poorly adhering contact surface, the substrate must be further cleaned or an alternative primer must be selected.

# TECHNICAL DATA

## APPEARANCE - COMPOSITION

Liquid with low viscosity, colourless, slightly cloudy.

## REACTION TIMES

Reaction time after mixing: 10 to 15 min.
Trafficable: after 1 hour
Recoatable: after 1 hour
Fully mechanical load: after 2 hour
Full chemical resistance: after 2 hour
Times measured at 20 °C; lower temperatures extend the curing time.

## CONSUMPTION

Consumption: 0.35 kg/m²
For porous surfaces the consumption is higher.

## TECHNICAL DATA

| | |
|---|---|
| Odour | Methyl methacrylate (See also information sheet "POLYAC® ODOUR") |
| Initiator: POLYAC® CATALYST | BPO 50 %, depending on the temperature from 1 % to 5 weight % calculated on the proportion of POLYAC® 14 |
| Viscosity | 100 - 300 mPa.s (20 °C Brookfield, spindle III/200 rpm) |
| Density | 1.0 g/cm³ ±0.1 (20 °C) |
| Flash point | 10 °C (MMA, DIN 51 755) |
| Hardening test (test volume) | 300 g POLYAC® 14 with 6 g curing powder |
| Exothermic peak | 120 - 145 °C |
| POLYAC® 14 + 2 % POLYAC® CATALYST | |
| Density | 0.98 kg/dm³ |
| Colour | Yellow-brown transparent |
| Shore D hardness | 70 – 80 |

## CHEMICAL RESISTANCES

Polymerized POLYAC® resins have good chemical resistance to alkalis, petroleum derivatives, acid, salts and maintenance products. POLYAC® resins are not resistant to solvents. For more information please contact RESIPLAST NV.

## CE MARKING

| | |
|---|---|
| CE | |
| KORAC NV, Gulkenrodestraat 3, 2160 Wommelgem, Belgium | |
| 12 | |
| EN 13813 | |
| Synthetic resin floor/coating for indoor use in buildings | |
| Release of corrosive substances | SR |
| Abrasion resistance | NDP |
| Bond strength | ≥ B2,0 |
| Impact resistance | NDP |
| Reaction to fire | $E_{fl}$ |

Part of:

| |
|---|
| CE |
| 0749 |
| 13<br>0749-CPR-BC2-562-4714-0001-001 |
| EN 1504-2:2004 |
| DoP N°: DOP02PLC01S2<br>DoP N°: DOP02PLC02S2<br>DoP N°: DOP02PLC03S2<br>DoP N°: DOP02PLC04S2 |

## REFERENCE DOCUMENTS

Information sheet "POLYAC® ODOUR".

FM 78518 EMS 716699 3151

## PACKAGING

| | | |
|---|---|---|
| POLYAC® 12 | 20 kg | Metal pail |
| | 180 kg | Drum |

To be ordered separately:

| | | |
|---|---|---|
| POLYAC® CATALYST | 0,5 kg | Plastic pail |
| | 5 kg | Plastic pail |
| | 25 kg | Box |

## STORAGE AND SHELF LIFE

Store POLYAC® products in a dry, well-ventilated storage area between +5 and +35 °C.
Shelf life: 12 months after production date.
In case of doubt, please contact RESIPLAST NV and state the batch number on the packaging. Do not discharge into groundwater, surface water of sewers. Dispose of contaminated packaging and residues in accordance with the applicable legal requirements.

## SAFETY PRECAUTIONS

Carefully read the safety data sheets before using POLYAC® products. A characteristic odour arises during processing. Ensure adequate ventilation, keep away from sources of ignition and do not smoke. Avoid skin contact. Eye irritation and/or hypersensitivity may occur with severe vapour concentration, inhalation and/or skin contact. Do not store food (food, drinks) in the same workspace. Always wear personal safety equipment in accordance with the applicable local guidelines and legislation. Gloves and safety glasses are mandatory.



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