**POLYAC® 12**

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

**DESCRIPTION**

POLYAC® 12 is a rigid, very fast curing, PMMA (Polymethyl methacrylate) based primer for the POLYAC® systems, to be applied on mineral surfaces.

**ADVANTAGES**

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

**FIELD OF APPLICATION**

POLYAC® 12 is a rigid primer for the POLYAC® floor, membrane and other POLYAC® systems that are applied to mineral, absorbent surfaces such as sand/cement screeds, concrete, brick, tiles, ... The primer has excellent adhesion and can be applied at temperatures below freezing thanks to its rapid reaction and good reactivity. POLYAC® 12 can be used as concrete protection and the sanded-in 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® 12 must be applied on a dry surface. Moisture content in the substrate: ≤ 5% moisture.

Conditions during the application and curing: see “implementation 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 if they do not follow 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 squeegee
- 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 ground with a diamond blade. These treatments ensure that an open texture surface is obtained, to remove the cement skin 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**

Mixing

Mix POLYAC® 12 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.

**APPLICATION**

Always work with clean mixing containers and application material.

**PREPARATION OF THE EQUIPMENT**

POLYAC® 12 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® 12 on highly porous surfaces. Extra mechanical adhesion can be obtained by broadcasting dry quartz into the layer that has not yet cured (0,5 kg/m²). Polyurethane and epoxy systems can only be applied on a broadcasted POLYAC® 12 primer. Note: Do not disturb the paraffin layer that occurs during curing.

**ADDITIONS**

Add POLYAC® CATALYST to POLYAC® 12

<table>
<thead>
<tr>
<th>Temp.</th>
<th>In %</th>
<th>POLYAC® CATALYST per 1kg POLYAC® 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C</td>
<td>5%</td>
<td>50g</td>
</tr>
<tr>
<td>5°C</td>
<td>4%</td>
<td>40g</td>
</tr>
<tr>
<td>10°C</td>
<td>3%</td>
<td>30g</td>
</tr>
<tr>
<td>20°C</td>
<td>2%</td>
<td>20g</td>
</tr>
<tr>
<td>30°C</td>
<td>1%</td>
<td>10g</td>
</tr>
</tbody>
</table>

Mix until the powder is completely dissolved.
FINISHING
The cured primer 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® 12. 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
POLYAC® 12 as primer on contaminated surfaces:
First perform an adhesion and hardening test.
After the substrate preparation, take a small amount of POLYAC® 12. 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
Processing time after mixing: 10 to 15 min.
Walkable: after 1 hour
Recoatable: after 1 hour
Fully mechanical load: after 2 hours
Full chemical resistance: after 2 hours
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Odour</td>
<td>Methyl methacrylate (See also information sheet “POLYAC® ODOUR”)</td>
</tr>
<tr>
<td>Initiator: POLYAC® CATALYST</td>
<td>BPO 50%, depending on the temperature from 1% to 5 weight% calculated on the proportion of POLYAC® 12</td>
</tr>
<tr>
<td>Viscosity</td>
<td>200 - 250 mPa.s (20°C, Brookfield, spindle III/200 rpm)</td>
</tr>
</tbody>
</table>

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

CE TABLE

<table>
<thead>
<tr>
<th>Reaction to fire</th>
<th>E&lt;sub&gt;f&lt;/sub&gt;</th>
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</thead>
<tbody>
<tr>
<td>Release of corrosive substances</td>
<td>SR</td>
</tr>
<tr>
<td>Water permeability</td>
<td>NPD</td>
</tr>
<tr>
<td>Wear resistance (Taber)</td>
<td>&lt;15 mg CS10-1000 tr - 1 kg</td>
</tr>
<tr>
<td>Adhesive pull strength</td>
<td>B 1.5</td>
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<tr>
<td>Impact resistance (DIN EN ISO 6272)</td>
<td>&lt;1 Nm</td>
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<tr>
<td>Sound insulation</td>
<td>NPD</td>
</tr>
<tr>
<td>Sound absorption</td>
<td>NPD</td>
</tr>
<tr>
<td>Thermal insulation</td>
<td>NPD</td>
</tr>
<tr>
<td>Resistance to chemicals</td>
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</table>

REFERENCE DOCUMENTS
Fiche d’informations “POLYAC® ODOUR”

PACKAGING

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>POLYAC® 12</td>
<td>20 kg Metal pail</td>
</tr>
<tr>
<td></td>
<td>180 kg Drum</td>
</tr>
<tr>
<td>POLYAC® CATALYST</td>
<td>0.5 kg Plastic pail</td>
</tr>
<tr>
<td></td>
<td>5 kg Plastic pail</td>
</tr>
<tr>
<td></td>
<td>25 kg Box</td>
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</tbody>
</table>
**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**

Please read the safety data sheets carefully before using POLYAC® products. The products emit a characteristic odour during processing. Provide adequate ventilation. Keep away from sources of ignition. No smoking. Avoid skin contact. Eye irritation and/or hypersensitivity may occur at high vapour concentrations, upon inhalation and/or skin contact. Do not store food or beverages in the work area. Always wear personal protective equipment in accordance with all applicable local regulations and legislation. Gloves and safety goggles are mandatory.