

MONOFLEX PU

One component, professional, brushable polyurethane waterproofing membrane.

Description

MONOFLEX PU is a one-component polyurethane, waterproofing liquid membrane for terraces, based on pure, elastomeric, hydrophobic, polyurethane resins, resulting in a uniform, elastic, waterproof, vapor-permeable sealing layer, without forming seams or joints.

It has excellent mechanical, chemical, thermal, UV and weather resistance properties, as well as excellent bonding to various substrates like concrete, cement mortars, wood and most waterproofing layers.

It can be applied even on irregular substrates and is suitable for green roofs, flower beds etc.

Examples of applications

Ideal for waterproofing:

- Terraces roofs, balconies, flowerbeds as an exposed waterproofing membrane.
- Under thermal insulation boards on terraces.
- In construction works, such as highways, bridge decks, tunnels, bridges, irrigation channels, parking decks, basement tanks etc.
- Bathrooms or kitchen under tiles.
- Old layers of bituminous or EPDM membranes.
- Polyurethane foam.
- Metal surfaces.

Advantages

- Simple application (roller or airless spray).
- When applied forms seamless membrane without joints.
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Resistant to stagnant water and does not peel off.
- Resistant to weather conditions: rain water, frost, UV.
- Resistant to root penetration, so it can be used in green roofs.
- Highly elastic properties even at very low temperature (-40 °C). Very good crack-bridging properties.
- Excellent thermal resistance. The membrane does not turn soft or tacky at high temperatures (+80 °C).
- Provides high sun reflectivity, contributing to thermal insulation.
- Maintains its mechanical properties over a temperature span of -40°C to +90°C.

- Provides excellent adhesion to almost any type of surface, without the use of a primer.
- The waterproofed surface can be used for domestic - public pedestrian and vehicular traffic.
- Resistant to detergents, oils, seawater and domestic chemicals.
- Does not need the use of open flames (torch) during application.
- Cost efficient.

Specifications

Form: White pre-polymer polyurethane

Density: 1,5 gr/cm³

Operating temperature: -40 °C to 90 °C

Surface membrane formation: 3 hr

Elongation at break: 500%

Tensile strength : >4 N/mm²

Hardening according to SHORE A : 78

Water Vapor permeability: 12,8 gr/m² /day

Impermeability to water: Watertight

Adhesion to concrete: > 2 N/mm²

User load: P4 (Special)

Roof slopes: S1 to S4

Climate zone: S (Severe)

Minimum expected working life: W2 (10 years)

Resistance to Water Pressure: No Leak (1m water column, 24h)

Crack Bridging Capability: up to 2 mm

Thermal Resistance (80 °C for 100 days) Passed - No significant changes

Substrate preparation

Ensure clean stable surfaces, dry (moisture content <4%) and free from loose particles, dust, grease, dirt etc. Close and repair any large gaps with suitable BAUER repair products and cracks with Flexible PU Sealant. Remove any old coatings before application. Although it is applied on most surface without the use of a primer, special Bauer primers are available to cover almost all types of substrates such as non-absorbent surfaces, bitumen-based coatings etc.

Instructions for use

MONOFLEX PU is ready for use. It requires only good stirring into the tank for a short time until it becomes homogeneous. Apply the material with brush, roller or air-gun in 2-3 layers. The second layer is applied onto the first crosswise usually after 3h and no more than 48 hours depending on weather conditions. When a primer is applied the first layer can be applied after 1 hour and no more than 24 hours.

The drying time is significantly affected by the environmental conditions (temperature and humidity). Once the material is cured it can only be removed mechanically.

Consumption

1,5 – 2,0 kg/m² applied in two or three layers. This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

Packaging

6 and 25 kg metal pails

Storage

12 months from production date, if stored in original, unopened packaging, at temperatures between +5 °C and +35 °C. Protect from direct sun exposure and frost. When opened should be used all at once, however a half-used pail if stored properly can be used again. A half-used pail will develop a cured layer of material on top during storage. If this cured layer is removed, the remaining liquid material can be used again.

Safety notes

Contains isocyanates. See information supplied by the manufacturer. Please study the Material Safety Data Sheet. PROFESSIONAL USE ONLY

Notes

Technical details, properties, recommendations and information on BAUER products are supplied in good faith. They are based on the company's research and experience, provided that they are stored and applied under normal conditions. As the method of using materials as well as project and environment conditions are beyond the control of the company in each individual application setting, the product user is held solely responsible for the result of application. No responsibility under any legitimate relationship can be substantiated against the company, based on the information set out hereunder. Product users are advised to refer to the latest revision of the technical manuals available.

Other information

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