

Technical Datasheet

IZOZEN[®] FLEXPUR PU 500

Polyurethane, waterproofing liquid membrane

Description

IZOZEN[®] FLEXPUR PU 500 is a one-component polyurethane, waterproofing liquid membrane for terraces, offering:

- Excellent mechanical, chemical, thermal, UV and weather resistance properties, as it is based on pure, elastomeric, hydrophobic, polyurethane resins.
- A uniform, elastic, waterproof, vaporpermeable sealing layer, without forming seams or joints.
- Excellent bonding to various substrates like concrete, cement mortars, wood and most waterproofing layers.
- Applicability, even on irregular substrates.
- Suitability for green roofs, flower beds etc.
- Toxicity and Fungi Resistance
- Availability in white or other colors.

Fields of application

- IZOZEN[®] FLEXPUR PU 500 is ideal for waterproofing:
- Terraces and balconies as an exposed waterproofing membrane.
 - Underneath tile layers in kitchens, bathrooms, balconies and terraces, as long as quartz sand has been broadcasted on its last layer.
 - Under thermal insulation boards on terraces.
 - In construction works, such as highways, bridge decks, tunnels etc.
 - Foundations.
 - Gypsum and cement boards.
 - Old layers of bituminous or EPDM membranes.
 - Polyurethane foam.
 - Metal surfaces.
 - Concrete surfaces.

Technical data

Form:	pre-polymer polyurethane
Colors:	Grey/white or any specialize
Density:	1.30 - 1.35 kg/l
temperature:	from +5°C to +35°C
Viscosity:	4,000 ± 500 mPa·sec
SRI	101.5
(ASTM D 412)	(600 ± 80)%
(ASTM D412)	6.4 N/mm2
to SHORE A:	75 ± 3
Water impermeability:	5 atm
(DIN 1048)	
Minimum surface temperature:	TL4

Directions for use

1. Substrate preparation

The substrate must be dry (moisture content < 4%) clean, free of oil or grease, loose material, dust, etc.

1.1 Concrete substrates

Any existing cavities in concrete should be filled with the appropriate repairing materials in advance.

1.2 Smooth and non-absorptive substrates

Smooth and non-absorptive substrates, as well as bituminous membranes or old waterproofing layers, must be primed with the any water-based epoxy primer (Consult with technical advisor of IZOZEN[®])

1.3 Metal surfaces

Metal surfaces should be:

- Dry and clean.
- Free of grease, loose particles, dust etc. that may hinder adhesion.
- Free of rust or corrosion that may hinder adhesion.

The substrate should be prepared by brushing, rubbing, sandblasting etc. and then thoroughly cleaned from dust. IZOZEN[®] FLEXPUR PU 500 may be applied without prior priming.

2. Application-Consumption

Before the application, it is recommended to slightly stir IZOZEN[®] FLEXPUR PU 500, until it becomes homogeneous. Extensive stirring should be avoided, in order to prevent air entrapment in the material.

a) Total sealing of the surface IZOZEN[®] FLEXPUR PU 500 is applied by brush or roller in 2 layers. The first layer is applied 2-3 hours after priming and while primer is still tacky. The second layer should be applied crosswise after 8-24 hours, depending on the weather conditions. Consumption: approx. 1.0-1.5 kg/m2, depending on the substrate. In case of dense, multiple cracks all over the surface. it is strongly recommended to thoroughly reinforce IZOZEN[®] FLEXPUR PU 500 membrane with 100 cm wide strips of polypropylene fiber tape (40 g/m2). These placed strips must overlap one another by 510 cm.

Maximum surface temperature:	TH4
Operating temperature:	from -20°C to +80°C
Climatic zone:	S (Severe)
Reaction to fire: (EN 13501-1)	Euroclass F

Shelf life – 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

Remarks

- In case of application by spraying, it may be diluted, depending on the weather conditions, up to 10%
- Temperature during the application and hardening of the product should be between +8°C and +35°C.
- The consumption of IZOZEN® FLEXPUR PU 500 should not exceed 750 g/m² per layer.
- Unsealed packages should be used at once and cannot be restored.

In detail, 2-3 hours after priming, the first layer of IZOZEN® FLEXPUR PU 500 is applied, in order to cover the reinforcement (to a width of 100 cm), and while still fresh, a strip of polypropylene fiber tape is embedded. The same application procedure is followed in the remaining surface. Then, two extra layers of IZOZEN® FLEXPUR PU 500 are applied on the entire surface. Consumption: approximately 1.5-2.25 kg/m², depending on the substrate and type of reinforcement.

b) Waterproofing under tiles

IZOZEN® FLEXPUR PU 500 is applied by brush or roller in 2 layers. IZOZEN® FLEXPUR PU 500 should be locally reinforced along joints and wall-floor junctions, by embedding a 10cm wide polypropylene fiber tape (40 g/m²) on its first layer, while it is still fresh. Then, two extra IZOZEN® FLEXPUR PU 500 layers are applied along the cracks, completely covering the reinforcement. After applying the final layer and while this is still fresh, quartz sand (Ø 0.3 - 0.8 mm) must be broadcasted. The quartz sand must be completely dry. Consumption of quartz sand: approx. 3 kg/m². After IZOZEN® FLEXPUR PU 500 has hardened, any loose grains should be removed with a vacuum cleaner.

Tiles should be fixed with a high-performance, polymer-modified tile adhesive, like IZOZEN FLEXPUR AK Series.

Packaging

IZOZEN FLEXPUR PU 500 is supplied in 15 kg, 20 kg

IZOZEN® Health and Safety Message

- Always wear safety goggles, Mask, Helmet when working with hazardous materials.
- Follow safety procedures at all times when using power tools.
- Make sure your work area is tidy and free of trip hazards.
- Watch where you're walking – don't run in the workplace!
- Always use the appropriate lifting technique when moving heavy objects.
- Keep jewelry and other loose objects away from machinery.
- Don't eat or drink near hazardous materials.
- Report unsafe conditions immediately to your supervisor.
- Wear the correct clothing for the job – no loose clothing or jewelry!
- Take regular breaks and stay hydrated while working.
- Always be aware of your surroundings.
- Always use personal protective equipment when working with chemicals.

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