

ISOFLEX-PU 560 BT

Polyurethane - bituminous, two-component, liquid waterproofing membrane

Description

Polyurethane - bituminous, two-component, liquid waterproofing membrane. ISOFLEX-PU 560 BT consists of hydrophobic, polyurethane resins (comp. A) and bitumen (comp. B). The membrane formed is waterproof, shows high elasticity and excellent mechanical and chemical resistance.

It offers the following advantages:

- Forms a uniform, elastic, waterproof sealing layer, without seams or joints.
- Shows excellent adhesion to various substrates, like concrete, cement mortars, wood, bituminous coatings, steel surfaces.
- Does not require a smooth substrate and may be applied in thick layers.
- Is easy to mix (1:1 by volume).
- Dries quickly.
- Is suitable for crack bridging.
- Can be used to seal joints.

Certified with the CE marking as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.

ISOFLEX-PU 560 BT is certified as root resistant according to UNE CEN/TS 14416 EX: 2014.

Fields of application

ISOFLEX-PU 560 BT is suitable for waterproofing:

- Underground constructions, e.g. foundations.
- Green roofs.
- Non-potable water tanks.
- Irrigation channels.
- Underneath tiles in kitchens, bathrooms, balconies, roofs and terraces, as long as quartz sand has been previously broadcast on its last layer.
- Under thermal insulation boards on terraces.

- In construction works, highways, tunnels, for waterproofing bridge decks, etc.

Technical data

1. Properties of the product in liquid form

Form:	mixture of prepolymer polyurethane resin and bitumen
Color:	black
Density (A+B):	1.00 kg/l
Mixing ratio	1:1 by volume
Viscosity:	2,500 mPa·s (at +23°C)
Pot Life:	40 min. (at +23°C)

2. Properties of the cured membrane

Elongation at break: (ASTM D 412)	> 1500%
Tensile strength: (ASTM D412)	2 N/mm ²
Water impermeability: (DIN 1048)	5 atm
Adhesion: (EN 1542):	> 2 N/mm ²
Hardness: (Shore A)	30
Reaction to fire: (EN 13501-1)	Euroclass F
Temperature resistance:	from -40°C to +80°C

Directions for use

1. Substrate preparation

In general, the substrate must be dry (moisture content < 4%) and free of grease, loose particles, dust etc.

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1.1 Concrete substrates

Any existing cavities in concrete should be repaired in advance.

Intense cracks on the substrate must be primed locally and after 2-3 hours (depending the weather conditions) must be sealed with the polyurethane sealants FLEX PU-30 S or FLEX PU-50 S.

Concrete and other porous surfaces should be treated with polyurethane primer PRIMER-PU 100, at a consumption of approx. 200-300 g/m².

Surfaces with moisture content > 4% should be primed with the special two component polyurethane primer PRIMER-PU 140, at a consumption of 100-200 g/m².

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 water-based epoxy primer EPOXYPRIMER 500, thinned with water up to 30% by weight. The product is applied by brush or roller in one coat.

Consumption: 150-200 g/m².

Depending on the weather conditions, ISOFLEX-PU 560 BT is applied within 24-48 hours from priming, as soon as the moisture content falls below 4%.

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.

Prepared by brushing, rubbing, sandblasting etc. and then thoroughly cleaned from dust. After the preparation are primed with the EPOXYCOAT-AC anti-corrosive epoxy coating in 1 or 2 layers. EPOXYCOAT-AC is applied by roller, brush or spray. The second layer follows after the first has dried, but within 24 hours.

Consumption: 150-200 g/m²/layer.

Application of ISOFLEX-PU 560 BT should follow within the next 24-48 hours.

2. Application - Consumption

Components A (polyurethane resin) and B (bitumen) are packed in different containers. Mix equal quantities of the two components into a clean container.

The two components are mixed for about 3 minutes with a low-speed mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and bottom of the container.

a) Total waterproofing of the surface

ISOFLEX-PU 560 BT is applied with a brush, roller or trowel 2-3 hours after priming and while PRIMER-PU 100 is still tacky.

Consumption: approx. 1.1-1.5 l/m², depending on the substrate.

b) Waterproofing under tiles

After applying ISOFLEX-PU 560 BT and while it is still fresh, quartz sand (Ø 0.3-0.8 mm) must be broadcast. The quartz sand must be completely dry.

Consumption of quartz sand: approx. 3 kg/m². After ISOFLEX-PU 560 BT has hardened, any loose grains should be removed with a high-suction vacuum cleaner.

When installing ceramic tiles, it is recommended to use high-quality, polymer-modified tile adhesives, like ISOMAT AK 22, ISOMAT AK 25, ISOMAT AK-ELASTIC, ISOMAT AK-MEGARAPID.

Tools should be cleaned with SM-16 special solvent, while ISOFLEX-PU 560 BT is still fresh.

Packaging

10 l (A+B) and 40 l (A+B) containers.

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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, ISOFLEX-PU 560 BT may be diluted, with a small quantity of the special solvent SM-16, depending on the weather conditions.
- ISOFLEX-PU 560 BT is not suitable for contact with chemically treated water of swimming pools.
- Temperature during application and hardening of the product should be between +8°C and +35°C.
- Packages that have been opened cannot be restored.

Volatile Organic Compounds (VOC)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type SB is 500 g/l (2010) for the ready-to-use product. The ready-to-use product ISOFLEX-PU 560 BT contains a maximum of 500 g/l VOC.



2032

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DoP No.: ISOFLEX-PU 560 BT / 1841-01

EN 1504-2

Surface protection products

Coating

Permeability to CO₂: Sd > 50 m

Water vapor permeability: Class I (permeable)

Capillary absorption: $w < 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$

Adhesion: $\geq 0.8 \text{ N/mm}^2$

Artificial weathering: Passes

Reaction to fire: Euroclass F

Dangerous substances comply with 5.3

ISOMAT S.A.

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