Technical Datasheet

ISOFLEX-PU 560 BT

Two-component, polyurethane-bituminous, liquid waterproofing membrane

Description

ISOFLEX-PU 560 BT is a two-component, polyurethane-bituminous, liquid waterproofing membrane consisting of hydrophobic polyurethane resins (component A) and bitumen (component B). The membrane formed is watertight, shows exceptional elasticity and excellent mechanical strength and chemical resistance. It offers the following advantages:

- Monolithic, exceptionally elastic and waterproof membrane, without seams or joints.
- Excellent adhesion to various substrates, such as concrete, cement screed, wood, bituminous coatings, and steel surfaces.
- Applicability even to irregular substrates and in thick layers.
- Easy mixing (1:1 by volume).
- Quick-drying time.
- Crack-bridging properties.
- Joint-sealing solution.

Certified according to EN 1504-2 and classified as a coating for surface protection of concrete. CE marked. Certificate No. 2032-CPR-10.11.
ISOFLEX-PU 560 BT has been successfully tested by a third-party laboratory for resistance to root penetration, according to CEN/TS 14416:2014.

Fields of application

ISOFLEX-PU 560 BT is suitable for waterproofing:

- Underground constructions, e.g. foundations.
- Green roofs and flower beds.
- Non-potable water tanks.
- Irrigation channels.
- Under 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 flat roofs.
- In construction works, highways, tunnels, bridge decks, etc.

Technical data

1. Properties of the product in liquid form

Form:	mixture of polyurethane prepolymer 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 / EN 527-3)	> 2,000%
Tensile strength: (ASTM D 412 / EN 527-3)	> 2.0 N/mm^2
Water impermeability: (DIN 1048)	5 atm
Permeability to CO_2: (EN 1062-6)	Sd > 50 m
Water vapor permeability: (EN ISO 7783-2, permeable, Class I < 5m)	Class I
Capillary absorption: (EN 1062-3, requirement of EN 1504-2: w < 0.1)	w < 0.1 kg/m^2·h$^{0.5}$
Adhesion: (EN 1542)	> 1.2 N/mm^2
Shore A hardness:	35
Reaction to fire: (EN 13501-1)	Euroclass F
Service temperature:	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. Substrate temperature during application should be between +5°C and +35°C.

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1.1 Concrete substrates
Any existing cavities in concrete should be repaired in advance.
Severe cracks in the substrate must be locally primed and after 2-3 hours (depending on the weather conditions) must be sealed with the polyurethane sealant FLEX PU-30 S or FLEX PU-50 S.
Concrete and other porous surfaces should be treated with the polyurethane primer PRIMER-PU 100, with a consumption of 200-300 g/m^2.
Surfaces with moisture content > 4% should be primed with the special two-component polyurethane primer PRIMER-PU 140, with a consumption of 100-250 g/m^2.

1.2 Smooth and non-absorbent substrates
Smooth and non-absorbent substrates as well as bituminous membranes 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/m^2.

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 might impair adhesion.
- Free of rust or corrosion that might impair adhesion.

Having been prepared by brushing, grinding, sandblasting, etc., and then thoroughly cleaned from dust, metal surfaces are primed with the EPOXYCOAT-AC anti-corrosion epoxy coating in 1-2 layers. EPOXYCOAT-AC is applied by roller, brush or spray. The second layer follows after the first has dried, but no later than 24 hours.
Consumption: 150-200 g/m^2/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 packaged in different containers. Mix equal quantities of the two components into a clean container.
The two components are mixed for about 3 min with a low-speed mixer (300 rpm). It is important to stir the mixture thoroughly near the walls and bottom of the container.

a) Full-surface waterproofing
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: 1.2-2.0 l/m^2 in 2-3 layers, depending on the substrate.

b) Under-tile waterproofing
Following the application of ISOFLEX-PU 560 BT, and while is still fresh, quartz sand (Ø 0.3-0.8 mm) must be broadcast on the surface. The quartz sand must be completely dry.
Consumption of quartz sand: approx. 3 kg/m^2.

After 24 hours, any loose grains should be removed with a high-suction vacuum cleaner.

When installing ceramic tiles, it is recommended to use a high-performance polymer-modified tile adhesive such as ISOMAT AK-22, ISOMAT AK-24 CRYSTAL GEL, ISOMAT AK-25, ISOMAT AK-ELASTIC, and ISOMAT AK-MEGARAPID.

Tools should be cleaned with SM-28 special solvent while ISOFLEX-PU 560 BT is still fresh.

Packaging

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

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 sunlight and frost.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 08.07.2026

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Remarks

- For spray application, ISOFLEX-PU 560 BT may be diluted with a small amount of SM-28 special solvent, 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.
- Containers that have been opened should be used at once and cannot be restored.
- ISOFLEX-PU 560 BT is intended for professional use only.

Volatile Organic Compounds (VOCs)

According to 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.

CE

2032

ISOMAT S.A.
17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag Athanasios, Greece

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DoP No.: ISOFLEX-PU 560 BT / 1841-02

EN 1504-2

Surface protection products

Coating

Permeability to CO_2: Sd > 50 m

Water vapor permeability: Class I (permeable)

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

Adhesion strength by pull off test: ≥ 1.0 N/mm^2

Reaction to fire: Euroclass F

Dangerous substances comply with 5.3

ISOMAT S.A.
BUILDING CHEMICALS, MORTARS & PAINTS
HEADQUARTERS – THESSALONIKI, GREECE
17th km Thessaloniki – Ag. Athanasios Road
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece
T +30 2310 576000
www.isomat.eu e-mail: support@isomat.eu

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