

# ISOFLEX HYBRID

## Hybrid, polyurethane based elastomeric waterproofing liquid membrane for flat roofs

### Description

Hybrid, elastomeric, waterproofing liquid membrane for flat roofs, based on acrylic and polyurethane resins. It provides:

- A continuous, elastic, waterproof, vapor-permeable sealing layer, without seams or joints.
- Excellent bonding to various substrates like concrete, wood, metal and any type of old waterproofing membranes.
- High elasticity.
- High weather resistance and durability.
- High whiteness and solar reflectance.
- Improvement of energy performance of the building by decreasing the roof temperature.
- Resistance to ponding water.
- Application is possible even on irregular substrates.

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

### Fields of application

Ideal for waterproofing flat roofs, balconies etc. It is also a simple and safe solution for difficult areas and for local sealing of cracks in flat roofs.

Furthermore, it can be used as cool roof paint due to its high solar reflectance.

### Technical data

Colors:	white
Density:	1.40 kg/l
Elongation at break: (ASTM D 412)	550%

Water vapor permeability: (EN ISO 7783-2: Class I-permeable to water vapor, $S_d < 5$ )	$S_d = 0.59$ m
Capillary water absorption: (EN ISO1062-3: $W_3$ low, $w < 0.10$ kg/m <sup>2</sup> ·h <sup>0.5</sup> )	0.01 kg/m <sup>2</sup> ·h <sup>0.5</sup>
Adhesion strength: (EN 1542, requirement for flexible systems without trafficking: 0.8 N/mm <sup>2</sup> )	2.9 N/mm <sup>2</sup>
Artificial weathering: (EN 1062-11, after 2000 h)	Pass (no blistering, cracking or flaking)
Reaction to fire: (EN 13501-1)	Euroclass F
Minimum application temperature:	+5°C
Temperature resistance:	from -20°C to +80°C
Viscosity: (EN ISO 2884-2)	≈ 30,000 mPa·s
Drying time at +20°C: (EN ISO 2811-1)	2 h (in touch)
Recoat time at +20°C: (EN ISO 2811-1)	18 h (in touch)

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## Directions for use

### 1. Substrate preparation

The substrate must be dry, clean, free of grease, loose particles, dust, etc. Any existing cavities in concrete should be repaired in advance. The substrate is then primed with the special primer ISO-PRIMER at a consumption of approx. 200 g/m<sup>2</sup>.

### 2. Application - Consumption

#### a) Total waterproofing of the surface

As soon as the primer has dried, ISOFLEX HYBRID is applied by brush or roller in two layers at a consumption of 0.5-0.75 kg/m<sup>2</sup>/layer, depending on the substrate. The second layer should be applied crosswise, after the first one has dried and can be walked on.

In areas of severe cracks, it is recommended to locally reinforce ISOFLEX HYBRID with a 10cm wide fiberglass-mesh tape (65 g/m<sup>2</sup>) or polyester fleece (30 g/m<sup>2</sup>) along the cracks. In that case, after the primer has dried, a layer of ISOFLEX HYBRID is applied along the cracks and, while still fresh, the 10cm wide fiberglass-mesh or polyester fleece is embedded lengthwise. Then, two extra layers of ISOFLEX HYBRID are applied over the entire surface.

In case of dense, multiple cracks appearing all over the surface, it is strongly recommended to thoroughly reinforce ISOFLEX HYBRID membrane with 100cm wide strips of fiberglass mesh (65 g/m<sup>2</sup>) or polyester fleece (30 g/m<sup>2</sup>). The placed strips shall overlap one another by 5-10 cm. In this case, after the primer has dried, a layer of ISOFLEX HYBRID is applied as wide as the upcoming reinforcement, and, while still fresh, a strip of fiberglass mesh or polyester fleece is embedded. The same application procedure is followed over the remaining surface. Subsequently, two extra layers of ISOFLEX HYBRID are applied over the entire reinforcement.

Consumption: approximately 2.0-2.5 kg/m<sup>2</sup>, depending on the substrate and the type of reinforcement.

#### b) Local waterproofing of cracks

In this case, the substrate is primed only across the cracks at a width of 10-12 cm. After the primer has dried, a layer of ISOFLEX HYBRID is applied and, while still fresh, a 10 cm wide fiberglass-mesh (65 g/m<sup>2</sup>) or polyester fleece (30 g/m<sup>2</sup>) is embedded lengthwise. Then, two extra ISOFLEX HYBRID layers are applied along the cracks, completely covering the reinforcement.

Consumption: approximately 200-250 g/m of crack length.

Tools should be cleaned with water, while ISOFLEX HYBRID is still fresh.

## Packaging

ISOFLEX HYBRID is available in 1 kg, 4 kg, 13 kg and 25 kg containers.

## Shelf-life - Storage

24 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.

## Volatile Organic Compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory i, type WB is 140 g/l (2010) for the ready-to-use product. The ready-to-use product ISOFLEX HYBRID contains 4 g/l VOC.

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2032-CPR-10.11C

DoP No.: ISOFLEX HYBRID/1437-02

**EN 1504-2**

Surface protection products  
Coating

Permeability to CO<sub>2</sub>: Sd > 50m

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: Pass

Reaction to fire: Euroclass F

**ISOMAT S.A.**

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