

## Technical Datasheet

# ISOFLEX

## Elastomeric, liquid waterproofing membrane for flat roofs

### Description

ISOFLEX is an elastomeric, water-based, liquid waterproofing membrane for flat roofs. Has excellent bonding to various substrates, such as concrete, wood, metal and any type of waterproofing membranes and is applicable even to irregular substrates. After curing, it forms a continuous, elastic, waterproof and vapor-permeable membrane, without seams or joints, offering:

- High elasticity.
- High resistance to weather conditions and aging.
- High whiteness and solar reflectance.
- Improvement of building energy efficiency by decreasing the roof temperature.

The white is certified as cool paint.

Certified according to EN 1504-2 and classified as a coating for surface protection of concrete. CE marked. Certificate No.: 2032-CPR-10.11.

### Fields of application

ISOFLEX is ideal for waterproofing flat roofs, curved roofs, etc. Constitutes a simple and safe waterproofing solution for roof details, such as corners, edges and joints between different adjacent materials, as well as for isolated cracks. Furthermore, thanks to its high solar reflectance, it can be used as cool roof paint.

### Technical data

|                                                                               |                                          |
|-------------------------------------------------------------------------------|------------------------------------------|
| Colors:                                                                       | white, red-brown                         |
| Hardness according to SHORE A:                                                | 50                                       |
| Density:                                                                      | 1.41 kg/l $\pm$ 0.02 kg/l                |
| Elongation at break:<br>(EN ISO 527)                                          | 600 $\pm$ 50%                            |
| Capillary absorption:<br>(EN 1062-3, requirement of<br>EN 1504-2: $w < 0.1$ ) | 0.01 kg/m <sup>2</sup> ·h <sup>0.5</sup> |
| Permeability to CO <sub>2</sub> :<br>(EN 1062-6)                              | $S_d > 50$ m                             |
| Water vapor permeability:<br>(EN ISO 7783-2, Class I $< 5$ m)                 | $S_d=0.80$ m (permeable)                 |

|                                                                                                            |                                                 |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Adhesion:<br>(EN 1542, requirement for<br>flexible systems<br>without trafficking: 0.8 N/mm <sup>2</sup> ) | 1.3 N/mm <sup>2</sup>                           |
| Artificial weathering:<br>(EN 1062-11,<br>after 2000 h)                                                    | Pass (no blistering,<br>cracking or<br>flaking) |
| Reaction to fire:<br>(EN 13501-1)                                                                          | Euroclass F                                     |
| Solar reflectance:<br>(ISOFLEX white)<br>(ASTM E903-96)                                                    | 90%                                             |
| Infrared thermal<br>emittance:<br>(ISOFLEX white)<br>(ASTM E408-71)                                        | $\epsilon = 0.86$                               |
| Minimum application<br>temperature:                                                                        | +5°C                                            |
| Service temperature:                                                                                       | from -15°C to +90°C                             |
| Viscosity:                                                                                                 | ~ 80,000 mPa·s                                  |
| Drying time at +20°C:<br>(EN ISO 2811-1)                                                                   | 3 h (touch dry)                                 |
| Recoat time at +20°C:<br>(EN ISO 2811-1)                                                                   | 24 h (touch dry)                                |

### 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 filled in advance. The substrate can be primed with the special primer ISO-PRIMER with a consumption of approx. 200 g/m<sup>2</sup>.

#### 2. Application

##### a) Full-surface waterproofing

ISOFLEX is applied by brush or roller in two layers, after the primer has dried. The second layer should be applied crosswise after the first one has dried. In areas with severe cracks, it is recommended to reinforce ISOFLEX with a 10 cm wide strip of fiberglass mesh (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, the first layer of ISOFLEX is applied along the cracks and, while still fresh, the 10 cm wide strip of fiberglass mesh or polyester fleece is embedded lengthwise.



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Subsequently, two extra layers of ISOFLEX are applied over the entire surface.

Consumption: approx. 1.5 kg/m<sup>2</sup>, depending on the substrate.

In case there are dense, multiple cracks all over the surface, it is strongly recommended to fully reinforce ISOFLEX membrane with 100 cm wide strips of fiberglass mesh (65 g/m<sup>2</sup>) or polyester fleece (30 g/m<sup>2</sup>). These placed strips must overlap by 5-10 cm.

After the primer has dried, a first layer of ISOFLEX is applied to a width of 100 cm (as wide as the upcoming reinforcement), and, while still fresh, a strip of fiberglass mesh or polyester fleece is embedded. The same application process is followed until the remaining surface is covered. Subsequently, two extra layers of ISOFLEX are applied over the entire surface.

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

## b) Local waterproofing of cracks

In this case, the primer is applied on the substrate only along the cracks to a width of 10-12 cm. After the primer has dried, the first ISOFLEX layer is applied and, while still fresh, a 10 cm wide strip of fiberglass mesh (65 g/m<sup>2</sup>) or polyester fleece (30 g/m<sup>2</sup>) is embedded lengthwise.

Subsequently, two extra ISOFLEX layers are applied along the cracks, completely covering the reinforcement.

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

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

## Packaging

ISOFLEX is supplied in plastic containers of 1 kg, 5 kg, 13 kg and 25 kg.

## 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 sunlight and frost.

## Volatile Organic Compounds (VOCs)

According to 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 contains 1.66 g/l VOC.

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2032

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DoP No.: ISOFLEX / 1408-02

**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:  $\geq 1.0 \text{ N/mm}^2$

Artificial weathering: Pass

Reaction to fire: Euroclass F

Dangerous substances comply with 5.3

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BUILDING CHEMICALS, MORTARS & PAINTS

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