Technical Datasheet

ISOFLEX HYBRID

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

Description

ISOFLEX HYBRID is a hybrid, elastomeric, water-based, liquid waterproofing membrane for flat roofs, based on polyurethane and acrylic resins. 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 and aging.
- High whiteness and solar reflectance.
- Improvement of building energy efficiency by decreasing the roof temperature.
- Resistance to ponding water.

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 HYBRID 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

Color:	white
Density: (EN ISO 2811-1)	1.40 kg/l
Elongation at break: (EN ISO 527-3)	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^2·h$^{0.5}$)	0.01 kg/m^2·h$^{0.5}$
Adhesion strength: (EN 1542, requirement for flexible systems with no traffic:0.8 N/mm^2)	2.9 N/mm^2
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
Viscosity: (EN ISO 2884-2)	≈ 30,000 mPa·s
Drying time at +20°C: (EN ISO 9117-6)	2 h (touch dry)
Recoat time at +20°C: (EN ISO 9117-6)	18 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 repaired in advance. The substrate is then primed with the special primer ISO-PRIMER, with a consumption of approx. 200g/m^2.

2. Application – Consumption

a) Full-surface waterproofing
As soon as the primer has dried, ISOFLEX HYBRID is applied by brush or roller in two layers, with a consumption of 0.5-0.75kg/m^2/layer, depending on the substrate. The second layer should be applied crosswise, after the first one has dried and is walkable.
In areas with severe cracks, it is recommended to locally reinforce ISOFLEX HYBRID with a 10cm wide strip of fiberglass mesh (65g/m^2) or polyester fleece (30g/m^2) along the cracks.

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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 strip of 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 fully reinforce ISOFLEX HYBRID membrane with 100 cm wide strips of fiberglass mesh (65g/m^2) or polyester fleece (30g/m^2). These placed strips must overlap by 5-10cm. In that 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 process is followed over the remaining surface. Subsequently, two extra layers of ISOFLEX HYBRID are applied over the entire reinforcement.
Consumption: approx. 2.0-2.5kg/m^2, 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 to a width of 10-12 cm. After the primer has dried, a layer of ISOFLEX HYBRID is applied and, while still fresh, a 10cm wide strip of fiberglass mesh (65 g/m^2) or polyester fleece (30 g/m^2) is embedded lengthwise. Then, two extra ISOFLEX HYBRID layers are applied along the cracks, completely covering the reinforcement.
Consumption: approximately 200-250g/m of crack length.

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

Packaging

ISOFLEX HYBRID is supplied in 1kg, 4kg, 13kg and 25kg 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 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 140g/l (2010) for the ready-to-use product.
The ready-to-use product ISOFLEX HYBRID contains 4g/l VOC.

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CE

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DoP No.: ISOFLEX HYBRID/1437-02

EN 1504-2

Surface protection products
Coating

Permeability to CO_2: Sd > 50m

Water vapor permeability: Class I (permeable)

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

Adhesion: ≥ 0.8 N/mm^2

Artificial weathering: Pass

Reaction to fire: Euroclass F

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