

ISOBELL

Insulative, waterproof, and breathable membrane



TECHNICAL DATA SHEET COMPILATION DATE: 01/10/2025 REV.1



DESCRIPTION

ISOBELL® is an orange vapor barrier thermal membrane. It is made from a base of 100% recycled polyester, coated with a specific flame-retardant acrylic compound that is 100% water-based. The active component is a micro-expanding agent with high insulating power, produced in a single layer.

ISOBELL® provides a flexible solution for the restoration of damaged walls and facades, both interior and exterior. It enables quick and effective restoration of substrates, even in the most challenging conditions, without causing inconvenience to tenants. It enhances energy efficiency and building comfort due to its thermal insulation properties, breathability, resistance to mold and fungi, and long-term stability. Its use contributes to maintaining a healthy indoor environment. ISOBELL® is the ideal material for fast retrofitting and renovation projects, offering both economic advantages and a low environmental impact.

FIELDS OF APPLICATION

- Restoration of internal and external walls affected by rising damp.
- Restoration of internal and external walls suffering from mold and condensation.
- Thermal insulation of ceilings, floors, and walls.
- Elimination of thermal bridges.
- Restoration and coating of facades with cracks or thickness constraints..

SUPPLY CONDITIONS

Packaging: 1 roll of 7.125 m²

Packaging: wrapped in cardboard | Package weight: approx. 5 kg

ADVANTAGES

ISOBELL is designed to simplify all restoration or renovation projects. Its installation requires no fixing dowels and can be done by a single person, reducing intervention times and minimizing inconvenience for occupants.

ISOBELL is available in rolls, which can be installed vertically (top to bottom) or horizontally for external use.

INSTALLATION

SOBELL® is developed for easy and fast installation, even on complex, non-planar surfaces, including elements like cornices and sills that need to be preserved (recommended to use sheet form). ISOBELL® can be installed without the use of fixing dowels*.

*Pull-off tests conducted according to EN ISO 4624 guidelines, in comparison with reference EPS sheet.



INSTALLATION METHOD

IMPORTANT: prima di iniziare, lo sfondo dovrebbe essere:
Al riparo dalle intemperie e privo da rischio di congelamento.
Adeguatamente forte, rigido e stabile e ragionevolmente asciutto.
Pulito e privo di polvere, agenti di muffa e efflorescenze saline.

TIPS: It is recommended to prepare the rolls before installation by cutting them to the size of the wall. Lay the cut pieces on a flat surface to flatten them out. If necessary, spray both sides with water to expedite the preparation of the membrane. The material can easily be cut with a standard cutter and is suitable for DIY enthusiasts.

STEP 1

Spread our ready-to-use adhesive on the target wall using a 4 or 5 mm notched trowel, applying a layer with a thickness of approximately 1-1.5 mm.

STEP 2

Apply ISOBELL by unrolling it onto the surface. If necessary, use a simple cutter to trim and adjust the membrane.

STEP 3

Lay the ISOBELL membrane onto the adhesive and press firmly across the entire surface with the trowel to ensure proper adhesion.

STEP 4

Once the base has dried, apply a light coat of finishing plaster, about 0.5 mm thick. After the first layer has dried, apply a second coat to bring the total thickness to around 1-1.5 mm. Once fully dry (following the product's technical data sheet instructions), you can proceed with the final finishing by painting.

Charateristics	Standard	Reference	Parametar	Results
Tensile strength	UNI EN 12311-2		[N/mm2] - A _{%L} [N/mm2] - A _{%T}	2,9 - 37,6 % 2,24 - 50,6 %
Tensile strength following wear and tear	UNI EN 1847		[N/mm2] - A _{%L} [N/mm2] - A _{%T}	2,77 - 31,2 % 2,13 - 43,8 %
Fireproofing	EN 13501		Euro-classe	E
Pull-off resistance	ETAG 004		[MPa]	0,3
Tear resistance (nail shank)	UNI EN 12310-1		F _t [N] F _r [N]	227 ± 41 261 ± 23
Weight		T = 23°C U.R. = 50%	Ma [g/m2]	700 ± 7 %
Air permeability	UNI EN 12114:2001	T = 29°C U.R. = 40%	m³/(m²·h·50Pa)	0,16
Water vapor transmission	UNI EN ISO 1931	T = 23°C U.R. = 50%	μ S _g [m]	57,0 0,27
Water vapor transmission after wear and tear	UNI EN ISO 1931 UNI EN 1296	T = 23°C U.R. = 50%	μ S _g [m]	74,1 0,32
Thermal conductivity	EN 12667	T _{media} = 10 °C Δt = 20 °C	[W/mK]	0,031
Thickness	-	T = 23°C U.R. = 50%	S [mm]	5 ± 10 %
Mould protection	DIN 53931	Incubation of 2 weeks at 28°C	Visual evaluation	absence of fungal growth on the plate
	THOR No. 800.2	Incubation of 4 weeks at 25°C		
Tests conducted at qualified laboratories				



WARNINGS

- Do not apply in case of rain, threat of rain, or on facades exposed to direct sunlight (use protective sheets on scaffolding) or in strong winds.
- Do not apply if the relative humidity exceeds 70%.
- Do not apply on wet or damp surfaces with a moisture concentration exceeding 80%.
- Do not apply on surfaces treated with non-breathable paints, synthetic coatings, or on inconsistent or crumbling substrates.
- It is recommended to use skilled labor for application.
- Only breathable finishes and paints are recommended.

The information and instructions provided above, while based on our best experience, are purely indicative and should be confirmed by comprehensive practical applications. Therefore, before using the product, the user must determine whether it is suitable for the intended use and assumes full responsibility for any consequences arising from its use.

LEGAL NOTICE

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The most up-to-date Technical Data Sheet is available on our website at www.isobell.it.

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