

Protan FPO/TPO 1.8

Product Description

Protan FPO/TPO 1.8 is a flexible roofing membrane based on polyolefins and reinforced with a polyester textile. This product is designed for mechanical fastening on flat and low-sloped roofs. It can be used both as an exposed roofing membrane system or protected system for extensive green roofs. It is weldable using hot air and designed to perform well in various climatic conditions.

Protan FPO/TPO 1.8 is particularly well-suited for solar roofs, green roofs, and cool roofs due to its resistance to environmental, chemical, and biological impacts.

Key Properties

- Superior weather and environmental resistance.
- Resistant to UV radiation.
- Classified for fire performance in accordance with EN standards.
- Strong, secure joints achieved through hot-air welding – no open flames required.
- Compatible with bitumen-based membranes.
- Recyclable with documented carbon footprint.
- Root penetration resistant.
- Suitable for contact with cold potable water (WRAS approved).

Technical Properties

Essential characteristics	Performance	Test Method
Thickness	1.8 mm (-5%/+10%)	EN 1849-2
Mass per unit area	2.1 kg/m ² (-5%/+10%)	EN 1849-2
Reaction to fire	Class E	EN 13501-1
Water tightness (10kPa)	Pass	EN 1928 (B)
Tensile strength (L/T)	≥ 1050 N/50 mm	EN 12311-2 (A)
Elongation (L/T)	≥ 15 %	EN 12311-2 (A)
Resistance to impact	≥ 800 mm	EN 12691 (A)
Resistance to static load	≥ 20 kg	EN 12730 (A)
Tear resistance (L/T)	≥ 400 N	EN 12310-2
Joint peel resistance	≥ 600 N/50 mm	EN 12316-2
Joint shear resistance	≥ 800 N/50 mm	EN 12317-2
Foldability at low temperature	≤ -25°C	EN 495-5
Exposure to UV	Pass (Grade 0 after 5000 h exposure)	EN 1297
Radon gas resistance	4.2 × 10 ⁸ s/m	SP-method 3873
Water vapour resistance	Sd-value: 250 m	EN ISO 12572
Dangerous substances	See Safety Data Sheet (SDS)	-
Root Resistance	Pass	FLL Guideline/EN 13948

L: Longitudinal (machine direction); T: Transverse (cross machine direction)

Dimensions

- Width: 1.60 m
- Length: 15 m
- Roll: 24 m² / 50 kg + core
- Pallet: 14 Rolls / 336 m² / 705 kg

Colours

Standard colour: White F01. Other colours are available on request.

Health, Environment, and Safety

- Environmental Product Declaration according to EN 15804 (the Norwegian EPD Foundation).
- Environmental Declaration registered in the Dutch Environmental Database (NMD).
- Safety Data Sheet (SDS) available on request.
- The membrane does not contain any substances listed on REACH/ECHA's Candidate List and is free from priority environmental pollutants or other substances in quantities considered hazardous to health or the environment.

Storage

- Shelf life: 10 years from the production date when stored under recommended conditions.
- Store in dry conditions, protected from direct sunlight.
- Keep rolls horizontally on a pallet. Avoid stacking pallets of rolls on top of one another or placing them under pallets with different materials during transport or storage.

Installation details

The product must be installed by experienced professionals. The membrane is hot-air welded and must be installed in accordance with the Protan technical specifications.

Certificates and approvals

- CE-marked in accordance with EN 13956.
- Fire classification according to EN 13501-5. Applicable roof system classifications are available upon request.
- WRAS approved for contact with cold potable water in accordance with BS 6920 (UK Water Regulations Approval Scheme).
- Overall migration: 4.5 mg/dm² (20% ethanol, 40 °C / 10 days), compliant with EU Regulation No. 10/2011, confirming low extractables and high chemical stability.

Protan Legal Notice

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