

## 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               | EN 13956               |
|---------------------------|---------------------------|------------------------|
| Thickness                 | 1.8 mm                    | EN 1849-2              |
| Mass per unit area        | 2.1 kg/m <sup>2</sup>     | EN 1849-2              |
| Reaction to fire          | Class E                   | EN 13501-1             |
| Water tightness (10kPa)   | Pass                      | EN 1928 (A)            |
| 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 (C)           |
| 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 temp.  | ≤ -25°C                   | EN 495-5               |
| Exposure to UV            | Pass > 5000 h             | EN 1297                |
| Radon gas resistance      | 4.2 × 10 <sup>8</sup> s/m | SP-method 3873         |
| Water vapour resistance   | Sd-value 380 m            | EN ISO 12572           |
| Dangerous substances      | None                      |                        |
| 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 m<sup>2</sup> / 50 kg + core
- Pallet: 14 Rolls / 336 m<sup>2</sup> / 705 kg + core and pallet.

### Colours

| Colour      | White | Grey White | Light Grey | Silver Grey | Dark Grey |
|-------------|-------|------------|------------|-------------|-----------|
| Protan code | F01   | F05        | F91        | F93         | F94       |
| ~RAL code   | 9016  | 9003       | 7040       | 7001        | 7012      |
| Samples     |       |            |            |             |           |

### 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 upon 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 production date provided proper storage.
- 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. Full system specifications 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/dm<sup>2</sup> (20% ethanol, 40 °C / 10 days), compliant with EU Regulation No. 10/2011, confirming low extractables and high chemical stability.

### Protan Legal Notice

The information in this document is based on Protan's current knowledge and experience when the product is stored, handled, and installed according to recommendations. Due to variations in materials, substrates, and site conditions, no warranty of merchantability or fitness for a particular purpose is provided, and no liability can be inferred from this document. The user is responsible for ensuring suitability for the intended application. Protan reserves the right to modify product specifications without notice. Protan's current sales and delivery terms apply to all orders. Always refer to the latest version of the Product Data Sheet, available on our website.

