Product data sheet

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Protan SE 1.6

Product Description

Protan SE 1.6 is a high-quality polyester reinforced thermoplastic (PVC-P) waterproofing membrane with high tensile and tear strength. Protan SE contains stabilizers, which makes the product resistant to high and low temperatures, UV-resistant and flame retardant.

Application Area

Protan SE is used on exposed roof surfaces. The membrane can be mechanically fastened to the load bearing substrate or installed in a Protan vacuum roof system. This single ply membrane can be used on roofs of all shapes and sizes – whether flat, sloped or curved. The membrane is used on warm/compact roof constructions as well as cold/ventilated constructions. South of the Alps, bright colours are recommended for longer service life.Exposed Roofs; Newbuilding

Key Properties

- Recyclable with documented carbon footprint.
- Documented long service life
- Strong, secure joints achieved through hot-air welding – no open flames required.
- Fire resistant, meeting relevant EN classifications.
- High water vapour permeability.
- Root penetration resistant.
- Slip resistant embossing on the top surface for enhanced safety.

Technical Properties

Characteristics	Performance	Test Method
Thickness	1.6 mm (-5%+10%)	EN 1849-2
Mass per Unit Area	1930 g/m^2	EN 1849-2
Water Tightness (10kPa)	Pass	EN 1928 (B)
Tensile Strength (L/T)	≥ 1100/1100 N/50 mm	EN 12311-2 (A)
Elongation (L/T)	≥ 15/15 %	EN 12311-2 (A)
Resistance to Impact	≥ 600 mm	EN 12691 (A)
Resistance to Static Load	≥ 20 kg	EN 12730 (A)
Tear Resistance (L/T)	≥ 210/210 N	EN 12310-2
Joint Peel Resistance	≥ 200 N/50 mm	EN 12316-2
Joint Shear Resistance	≥ 1000 N/50 mm	EN 12317-2
Foldability at Low Temp.	≤ -30 ˚C	EN 495-5
Dimensional stability	≤ ±0.5 %	EN 1107-2
Water Vapour Resistance	Sd-value 24,8 m	EN 1931
Exposure to UV	Pass (Grade 0)	EN 1297
Hail Resistance	≥22 m/s (RS)*, ≥50 m/s (FS)**	EN 13583
Root Resistance	Pass	FLL Guideline/ EN 13948

L: Longitudinal; T: Transverse; *RS = Rigid substrate; **FS = Flexible substrate

Standard Dimensions

- Width: 1.0 m / 1.1 m / 2.0 m/ 2.2 m
- Length: 15 m / 20 m

Surface Finish and Colour Options

Top Surface Colour	White	Light Grey	Dark Grey	Black
Protan code	F01	F91	F94	FX9
RAL code (approximate)	9016	7040	7012	9004
Samples				

The top surface features Protan's standard anti-slip embossing for enhanced safety. Additional colours are available upon request. The underside is dark grey.

Solar Reflectance Index (SRI)

Characteristics	White (F01)	Light Grey (F91)	Dark Grey (F94)	Test Method
Reflection factor	0.84	0.33	0.11	ASTM C 1549
Emissivity	0.84	0.86	0.85	ASTM C 1371
SRI	104 / 104 / 104*	33 / 34 / 35*	3 / 5 / 7*	ASTM E 1980

*Low-Wind Condition / Medium-Wind Condition / High-Wind Condition

Fire Classifications

- Reaction to Fire: Class E according to EN 13501-1 (classification based on material properties).
- External Fire Performance: BROOF according to EN 13501-5 (system dependent classification). Full system specifications available upon request.

Wind Load Resistance

Admissible loads for mechanically fastened systems are assessed according to EN 16002. Performance values depend on system configuration. Full test data and recommendations are available upon request.

Health, Safety and Environment

- 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

This product is CE-marked according to EN 13956 and UKCA-marked in compliance with UK regulations. A broad selection of national and international certification schemes is also available. For a complete and updated overview of certifications, visit our websites.

CE

Notified body: SINTEF, no. 1071
Certificate: 1071-CPR-1142

UKCA

Approved body: BBA, no. 0836
Certificate: UK 0836-CPR-23/F6931
EN 13956:2012

PROTAN

EN 13956:2012

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