PROTEUS PRO-FELT® ENDURA-FLEX TO DISPERSION SANDED UNDERLAY

PRODUCT DATASHEET | v1.2 | NOVEMBER 2025

PRODUCT DETAILS

Product name	**Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay**
Product type	Torch-on reinforced bitumen membrane (RBM) dispersion underlay

PRODUCT DESCRIPTION

Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay is a waterproofing membrane made of bitumen modified with SBS polymers, with a non-woven polyester and glass fibre reinforcement.

When overlaying, there may be trapped moisture in the existing roof construction. **Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay** has been engineered to bond to **50%** of the surface with bituminous stripes, allowing moisture gases to dissipate under the layer via channels and avoid blistering from gases which expand as they warm up.

APPLICATION

Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay is suitable for use on the following substrates:

- Existing bituminous or mastic asphalt membranes
- Rigid insulation boards
- Refurbishment overlays

Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay is appropriate for the following uses:

- **Proteus Pro-Felt® Endura-Flex** systems
- A waterproofing dispersion underlay
- Horizontal field area applications

Note: Some surfaces may require priming.

INSTALLATION

- To install the **Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay** correctly, repair the substrate as necessary and ensure that the surface is dry, free of oil, dust and other impurities
- Adhesion tests may be required to confirm substrate suitability before installation
- All surfaces should be primed prior to installation. Contact Proteus for specific information on priming
- All lap joints must be overlapped and completely sealed as per the following table:

Type	Measurement mm
Side Lap	80
End Lap	100
Upstands	100
Overlaps should be heat welded, ensuring a continuous 5mm bitumen bead extruding from all laps	

- Position the horizontal membrane sheets staggered, and starting from the lowest point, avoiding creating any overlaps against the slope
- Cut the corners of the membrane sheet at a 45° angle (100mm x 100mm)

- Bond the **Proteus Pro-Felt® Endura-Flex TO Dispersion Sanded Underlay** with a propane gas torch to the substrate. It is necessary to heat the entire surface with separate attention to the side and head laps
- All lap joints must be completely sealed, with a continuous **≥5mm** bitumen bead extruding from all laps
- Use a suitable roller to apply pressure over the surface of the membrane to ensure adequate adhesion

TECHNICAL INFORMATION

Characteristic	Value	Unit	Standard
Mass per unit area ±10%	4	kg/m²	EN 1849-1
Thickness	3	mm	-
Length -1%	10	m	EN 1848-1
Width -1%	1	m	EN 1848-1
Straightness	20	mm/10m	EN 1848-1
Watertightness A	60	kPa	EN 1928
Shear resistance L/T ±20%	650/400	N/50 mm	EN 12317-1
Tensile strength L/T ±20%	750/500	N/50 mm	EN 12311-1
Elongation at break L/T	40/40	%	EN 12311-1
Resistance to impact	900	mm	EN 12691
Resistance to static loading Method A	15	kg	EN 12730
Resistance to tearing nail shank	150/150	N	EN 12310-1
Dimensional stability L/T	±0.3	%	EN 1107-1:A
Flexibility at low temperature	-15	°C	EN 1109
Flow resistance at elevated temperature	100	°C	EN 1110
Coefficient of resistance to vapour diffusion of water	1,820,000	μ	EN 1931
Coefficient of resistance to vapour diffusion of water after exposure to chemical agents	1,820,000	μ	EN 1847 EN 1931
Coefficient of resistance to vapour diffusion of water after artificial ageing through long-term exposure to heat	1,820,000	μ	EN 1847 EN 1931
Diffusion of water vapour – layer thickness of air S_d	5460	m	EN 1931
Diffusion of water vapour – layer thickness of air after artificial ageing by long-term exposure to heat S_d	5460	m	EN 1296 EN 1931
Diffusion of water vapour – layer thickness of air after exposure to chemicals S_d	5460	m	EN 1847 EN 1931
Reaction to fire	E	-	EN 13501-1

SIZE, FINISH AND COLOUR

Product Code	Length m	Width m	Thickness mm	Weight kg	Finish	Colour
FGEULSDI10	10	1	3	40	Sand	Black

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STORAGE AND HANDLING

- The rolls should be stored in an upright position, indoors in a dry, warm and ventilated area, away from heat sources
- Avoid stacking rolls and pallets for storage or transport to avoid possible deformations
- It is recommended to store the product at temperatures above **0°C**
- The rolls that are temporarily stored on the roof before application, should be kept upright and shall be covered and protected from the weather

MATERIAL

Reinforcement	Non-woven polyester reinforced with glass fibre
Compound	Elastomeric modified bitumen
Upper finish	Sanded
Lower finish	Polypropylene film and sand in stripes

PACKAGING

Proteus Waterproofing felt label tape.

LIMITATIONS OF USE

For professional use only, the installation must be done at temperatures **≥5°C** and stopped in adverse weather conditions.

GUARANTEES

Defects arising from lack of maintenance or abnormal use may fall outside of the cover of the Proteus Waterproofing guarantee.

GUIDELINES AND STANDARDS

It is the responsibility of the Contractor to thoroughly familiarise themselves with all relevant Codes of Practice and Building Regulations to the works or referred in the specification.

Proteus Waterproofing take no responsibility for misinterpretation or lack of knowledge for third parties.

The works shall be carried out in accordance with the requirements of:

- **BS 6229** Flat roofs with continuously supported flexible waterproof coverings - Code of practice
- **BS 8217** Reinforced bitumen membranes for roofing - Code of practice
- **BS 8000-0** Workmanship on construction sites - Introduction and general principles
- **BS 8000-4** Workmanship on building sites - Code of practice for waterproofing
- **LRWA** Design Guide for Specifiers
- **S2T** Safe to Torch
- **GRO** Code of Best Practice

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