Proteus Pro-Felt® Endura-Flex TO Sanded Underlay

Proteus WATERPROOFING

Product Datasheet | **v1.1 | March 2025**

NBS

Product Details

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

Product Description

Proteus Pro-Felt® Endura-Flex TO Sanded Underlay is a torch on, polymer modified reinforced bitumen membrane used as an underlay within **Proteus Pro-Felt® Endura-Flex** built up roof systems.

It is composed of distilled bitumen and elastomeric polymers with non-woven polyester with glass fibre to provide reinforcement.

Application

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

- Concrete
- Metal
- Rigid insulation boards
- Existing bituminous or mastic asphalt membranes
- New roofs
- Overlays

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

- Proteus Pro-Felt® Endura-Flex systems
- As an air and vapour control layer
- A waterproofing underlayer
- Upstands and details

Note: Some surfaces may require priming.

Installation

- To install the **Proteus Pro-Felt® Endura-Flex TO Sanded Underlay** correctly, repair the substrate as necessary and ensure that the surface is dry, free of oil, dust and other impurities
- Adhesion test may be required to confirm substrate suitability before installation
- All details 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:

Lap Dimensions (mm)	
Side Laps	80
End Laps	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)

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- Bond the **Proteus Pro-Felt® Endura Flex TO 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
- Apply the vertical membrane making sure that it overlaps the horizontal one by at least **100mm**
- On vertical surfaces greater than **500mm** apply suitable mechanical fixings to head laps before covering

TECHNICAL INFORMATION

Characteristic	Value	Unit	Standard
Mass per unit area ±15%	3.7	kg/m²	-
Thickness ±0.2	3	mm	EN 1849-1
Length ±1%	10	m	EN 1848-1
Width ±1%	1	m	EN 1848-1
Shear resistance L/T	300/200	N/50mm	EN 12317-1
Water vapour transmission properties method A	100/300	μ/S_d (m)	EN 1931
Straightness	20	mm/10m	EN 1848-1
Watertightness A	60	kPa	EN 1928
Tensile strength L/T ±20%	400/300	N/50mm	EN 12311-1
Elongation at break L/T	40/40	%	EN 12311-1
Resistance to tearing nail shank	160/160	N	EN 12310-1
Dimensional stability L/T	±0.3	%	EN 1107-1
Flexibility at low temperature	-15	°C	EN 1109
Flow resistance at elevated temperature	90	°C	EN 1110
Durability of watertightness against artificial ageing	60	kPa	EN 1296 EN 1928
Durability of watertightness against chemicals	60	kPa	EN 1847 EN 1928
Resistance to impact	700	mm	EN 12691
Resistance to static loading method A	10	kg	EN 12730
Reaction to fire	F	-	EN 13501-1

SIZE, FINISH AND COLOUR

Product Code	Length m	Width m	Thickness mm	Weight kg	Finish	Colour
FGEULSTO10	10	1	3	37	Sanded	Black

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STORAGE AND HANDLING

- The rolls are to be stored in an upright position, indoors in a dry, warm, and ventilated area, away from heat sources
- Avoid the stacking of 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	Sand
Lower Finish	Polymeric film

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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