

PROTEUS PRO- FELT® ENDURA-FLEX SA SANDED UNDERLAY



PRODUCT DETAILS

Product name **Proteus Pro-Felt® Endura-Flex SA Sanded Underlay**

Product type Self-adhesive reinforced bitumen membrane (RBM) underlay

PRODUCT DESCRIPTION

Proteus Pro-Felt® Endura-Flex SA Sanded Underlay is a flame-free, self-adhesive reinforced bituminous membrane, used as an underlay within **Proteus Pro-Felt® Endura-Flex** built up roof systems.

It is saturated and coated with high quality elastomeric polymers with non-woven polyester with glass fibre to provide reinforcement.

APPLICATION

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

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

Proteus Pro-Felt® Endura-Flex SA 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 (Safe2Torch)

Note: Some surfaces may require priming.

INSTALLATION

- To install the **Proteus Pro-Felt® Endura-Flex SA Sanded Underlay** membrane correctly, repair the substrate as necessary and ensure that the surface is dry, free of oil, dust, and other impurities
 - Ambient and surface temperatures during the application should be at least **5°C**
 - All substrates, including thermal insulation* and detailing areas, should be primed with **Pro-Prime® SA**
 - We recommend that self-adhesive membranes are rolled into position and allowed to settle prior to their application
- * If used with **Proteus Pro-Felt® Endura-Flex TO Mineral Capsheet**, over suitable insulation, **Pro-Prime® SA** may be omitted in lieu of heat transfer activation, on horizontal work only
- 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	

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PRODUCT DATASHEET

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- 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)
- Apply by pulling off the bottom separating film whilst simultaneously rolling out the sheet
- During the application of **Proteus Pro-Felt® Endura-Flex SA Sanded Underlay** we recommend using a weighted roll bar or tube to help provide a uniform, strong bond
- After application, the installed membrane should be rolled again to remove any entrapped air and further strengthen the bond with the substrate
- Following the application of **Proteus Pro-Felt® Endura-Flex SA Sanded Underlay** within a multi layered roofing system, a suitable torch-on cap sheet (e.g. **Proteus Pro-Felt® Endura-Flex TO Mineral Capsheet**) must be installed immediately
- All laps should be sealed with a pressure roller and a visible bead of bitumen from all side and end laps
- 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 $\pm 15\%$	2.6	kg/m ²	-
Thickness $\pm 10\%$	2	mm	-
Length $\pm 1\%$	16	m	EN 1848-1
Width $\pm 1\%$	1	m	EN 1848-1
Thickness	2	mm	EN 1849-1
Straightness	20	mm/10m	EN 1848-1
Shear resistance $L/T \pm 20\%$	550/450	N/50mm	EN 12317-1
Water vapour transmission properties Method A	100/200	μ/S_d (m)	EN 1931
Tensile strength $L/T \pm 20\%$	600/500	N/50mm	EN 12311-1
Elongation at break L/T	35/35	%	EN 12311-1
Resistance to impact	700	mm	EN 12691
Resistance to static loading Method A	15	kg	EN 12730
Resistance to tearing nail shank	170/170	N	EN 12310-1
Dimensional stability L/T	± 0.3	%	EN 1107-1:A
Watertightness A	60	kPa	EN 1928
Flexibility at low temperature	-25	°C	EN 1109
Flow resistance at elevated temperature	100	°C	EN 1110
Water vapour transmission properties after exposure to artificial ageing $\pm 50\%$	100/200	μ/S_d (m)	EN 1296 EN 1931
Water vapour transmission properties against chemicals $\pm 50\%$	100/200	μ/S_d (m)	EN 1847 EN 1931
Self-adhesion properties	20	N/10mm	ASTM D1000

Proteus Waterproofing Limited
21a Sirdar Road
Brook Road Industrial Estate Rayleigh
Essex SS6 7XF

Telephone 01268 777 871
E-mail office@proteuswaterproofing.co.uk
Website www.proteuswaterproofing.co.uk



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Characteristic	Value	Unit	Standard
Reaction to fire	E	-	EN 13501-1

SIZE, FINISH AND COLOUR

Product Code	Length m	Width m	Thickness mm	Weight kg	Finish	Colour
FGEULSSA16	16	1	2	42	Sanded	Anthracite

SHELF LIFE 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 **5°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
- The performance of self-adhesive membranes can be compromised if they are stored incorrectly
- The product should also be installed within three months of delivery (please contact Proteus for further details)

MATERIAL

Reinforcement	non-woven polyester reinforced with glass fibre
Compound	Self-adhesive elastomeric modified bitumen
Upper Finish	Sand
Lower Finish	Silicon film

PACKAGING

Proteus Waterproofing felt label tape.

LIMITATIONS OF USE

For professional use only. The Installation must be done at temperatures $\geq 5^{\circ}\text{C}$ and stopped in adverse weather conditions.

Care must also be taken when using hot air guns near combustible materials, decorative coatings and heat sensitive materials.

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](#)