

PROTEUS PRO- FELT® ENDURA-FLEX PLUS TO MINERAL CAPSHEET



PRODUCT DETAILS

Product name **Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet**

Product type Torch-on reinforced bitumen membrane (RBM) capsheet

PRODUCT DESCRIPTION

Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet is a torch-applied, polymer modified reinforced bituminous capsheet which is saturated and coated with high quality thermoplastic bitumen. It is reinforced with non-woven polyester with glass fibre, a mineral finish on its upper surface, and a torch receivable film on its underside.

Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet is designed for use as a high-performance capsheet and can be used as the final waterproofing layer on a variety of Proteus Waterproofing built-up roofing systems (e.g. Torch-Safe and full Torch-On specifications).

The product is compatible with all common bituminous underlay membranes.

APPLICATION

Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet is suitable for use on the following substrates:

- Timber (indirect application)
- Metal (indirect application)
- Concrete
- Rigid insulation boards (indirect application)
- Existing bituminous or mastic asphalt membranes

Note: Some surfaces may require priming or sacrificial layers.

INSTALLATION

- To install the **Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet** correctly, repair the substrate as necessary and ensure that the surface is dry, free of oil, dust and other impurities
- When setting out the field area, rolls should always be laid in the same direction
- All lap joints must be overlapped and completely sealed as per the following table:

Type	Measurement mm
Side Lap	80
End Lap	100
Upstand/Detail Lap	100

All laps are to be heat welded with a suitable hot air gun or flame torch (dependant on Safe2Torch)

- 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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PRODUCT DATASHEET

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- Bond the **Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet** with a gas torch or hot air gun to the underlay or substrate. Ensure that a constant flow of bitumen is maintained across the whole width of the roll (the membrane must not be overheated due to its thermoplastic inlay.)
- 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
- For upstands and details please use **Proteus Pro-Felt® Endura-Flex SA Sanded Underlay** and either **Proteus Pro-Felt® Endura-Flex SA Mineral Capsheet** or **Proteus Pro-Felt® Endura-Flex Plus TO Mineral Capsheet** depending on Safe2Torch guidelines
- Apply the vertical membrane making sure that it overlaps the horizontal one by at least **100mm**
- On vertical surfaces greater than **250mm** apply suitable mechanical fixings to head laps before covering with the overlap of the next sheet of membrane

Note: The granule colour may vary during its useful life because of the weather and other outside agents.

TECHNICAL INFORMATION

Characteristic	Value	Unit	Standard
Mass per unit area $\pm 15\%$	5.4	kg/m ²	EN 1849-1
Thickness $\pm 10\%$	4.2	mm	-
Length $\pm 1\%$	8	m	EN 1848-1
Width $\pm 1\%$	1	m	EN 1848-1
Straightness	20	mm/10m	EN 1848-1
Watertightness _A	60	kPa	EN 1928
Tensile strength _{L/T} $\pm 20\%$	900/650	N/50mm	EN 12311-1
Elongation at break _{L/T}	45/50	%	EN 12311-1
Shear resistance _{L/T}	500/500	N/50mm	EN 12317-1
Resistance to Impact	1250	mm	EN 12691
Resistance to static loading _{Method A}	20	kg	EN 12730
Resistance to tearing _{nail shank}	200/200	N	EN 12310-1
Dimensional stability _{L/T}	± 0.3	%	EN 1107-1:A
Flow resistance at elevated temperatures	130	°C	EN 1110
Flexibility at low temperatures after artificial ageing	-15	°C	EN 1109 EN 1296
Flow resistance at elevated temperatures after artificial ageing	130	°C	EN 1110 EN 1296
Adhesion of granules	max. 30	%	EN 12039
Reaction to fire	E	-	EN 13501-1

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SIZE, FINISH AND COLOUR

Product Code	Length m	Width m	Thickness mm	Weight kg	Colour	Finish
FGECSMTO08	8	1	4.2	43	Anthracite	Mineral

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	Bitumen modified with thermoplastic elastomer
Upper finish	Mineral/slate
Lower finish	Polymeric film

PACKAGING

Proteus Waterproofing felt label tape.

LIMITATIONS OF USE

For professional use only.

Care must be taken when using torches and 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.

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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](#)