



### TECHNICAL DATASHEET

Reference Date:  
Version 1.1, May 2023

## PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Proteus Pro-Felt® Endura Mineral Anthracite

**PRODUCT TYPE:** Felt

**PRODUCT/SKU CODE:** FTECSMTO07

**PRODUCT DATASHEET REFERENCE:** TDS\_FTECSMTO07\_Proteus Pro-Felt Endura Mineral Anthracite\_V1.1\_110523

**COMPANY:** Proteus Waterproofing Ltd, 21a Sirdar Road, Brook Road Industrial Estate, Rayleigh, Essex SS6 7XF, United Kingdom

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## PRODUCT DESCRIPTION

Proteus Pro-Felt® Endura Mineral Anthracite is a torch-applied, bituminous cap sheet which is saturated and coated with high quality SBS (Styrene-Butadiene-Styrene) modified bitumen. It has a 180g/m<sup>2</sup> polyester fleece reinforcement, a thermofusible polyethylene film on the underside and has a slate surfaced finish. The product also incorporates a special graphite additive within the membrane to provide enhanced fire performance properties.

Proteus Pro-Felt® Endura Mineral Anthracite is designed for use as a high performance cap sheet, 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 & USE

Proteus Pro-Felt® Endura Mineral Anthracite should be installed in accordance with manufacturer recommendations and all relevant national standards and codes of practice, including BS 8217: 2005 – the code of practice for reinforced bitumen membranes for roofing.

Roofing contractors should also be fully conversant with the guidelines set out in the National Federation of Roofing Contractors (NFRC) 'Safe2Torch' campaign. All operatives using torch guns or hot air guns during installation should be competent, conversant and capable of using such items in a safe and responsible manner. Care must also be taken when using torches and hot air guns in close proximity to combustible materials, decorative coatings and heat sensitive materials.

In order to install the Proteus Pro-Felt® Endura Mineral Anthracite membrane correctly, ensure that the surface is dry, free of oil, fat and dust and other impurities. When setting out the field area, rolls should always be laid in the same direction. Side lap width should be at least 8 cm with end laps of at least 10 cm. A minimum 5 cm link with the waterproofing layers at all detailing and upstand abutments must also be achieved, with the completed detailing entirely encapsulating the underlying substrates.

The Proteus Pro-Felt® Endura Mineral Anthracite membrane must be fully bonded to the underlay by using the torch-on application method, ensuring that a constant flow of bitumen is maintained across the whole width of the roll and that a continuous bead of bitumen (5-15 mm) is exuded from all side and end laps to demonstrate that a good seal has been achieved. The lower surface has a thermofusible film which rapidly melts during the torching operation. When addressing an angle where the membrane will change from a horizontal to a vertical configuration, press the product firmly into place and ensure that a full bond is achieved throughout the detail.

NB: The granule colour may vary during its useful life due to the effect of the weather and other outside agents.

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## MATERIAL

|                            |                                      |
|----------------------------|--------------------------------------|
| <b>Reinforcement:</b>      | Polyester (180-200g/m <sup>2</sup> ) |
| <b>Compound:</b>           | Elastomeric modified bitumen         |
| <b>Upper Finish:</b>       | Mineral/Slate                        |
| <b>Lower Finish:</b>       | Thermofusible polyethylene film      |
| <b>Intended Use:</b>       | Capsheet                             |
| <b>Application Method:</b> | Torch on                             |

## WEIGHT

38kg roll

## FINISH & COLOUR

Upper Finish: Mineral

Colour: Anthracite

## PACKAGING

Proteus Waterproofing felt label tape

## PACK SIZE/UNIT OF MEASURE

- Rolls sold individually.
- Please refer to the table below in the 'Size & Dimensions' section for more information.

## CHEMICAL PROPERTIES

Proteus Pro-Felt® Endura Mineral Anthracite is water-resistant and is resistant to watery solutions of salt, diluted non-oxidising acids and bases. Aliphatic and aromatic hydrocarbons, as well as chlorine hydrocarbons, oils and greases may loosen the product and should therefore be avoided.

For product specific chemical information, please refer to the material safety safety datasheet.

## SIZE & DIMENSIONS

| Product Name                                     | Product Code | Roll Dimensions (m) | Weight (kg/m <sup>2</sup> ) |
|--|--------------|---------------------|-----------------------------|
| Proteus Pro-Felt® Endura Mineral Anthracite 7.5m | FTECSMTO07   | 7.5 x 1.0           | 5.6                         |

## SHELF LIFE

Not applicable.

## HANDLING

- The rolls are to be stored in an upright position, indoors in a dry and ventilated area, away from heat sources. It is recommended to store the product at temperatures above 0°C.
- Avoid the stacking of rolls and pallets for storage or transport as this may cause possible deformations which may compromise a perfect installation.
- For information on handling, please refer to the material safety datasheet.

## TECHNICAL INFORMATION

| Properties                                   | Test Methc              |                   | Declared Performance                   |
|--|-------------------------|-------------------|--|
| Length                                       | DIN EN 1848-1           | m                 | ≥ 7.50                                 |
| Width  | DIN EN 1848-1           | m                 | ≥ 1.00                                 |
| Straightness                                 | DIN EN 1848-1           | mm/10 m           | ≤ 20                                   |
| Mass per unit area                           | DIN EN 1849-1           | kg/m <sup>2</sup> | 5.6 (+ 5%)                             |
| Thickness                                    | DIN EN 1849-1           | mm                | 4.20 (+ 0.2)                           |
| Water tightness at 200 kPa test pressure     | DIN EN 1928<br>Method B | -                 | passed                                 |
| Tensile properties:<br>maximum tensile force | DIN EN 12311-1          | N                 | ≥ 900/600                              |
| Tensile properties: elongation               | DIN EN 12311-1          | %                 | ≥ 35/35                                |
| Flow resistance at elevated temperatures     | DIN EN 1110             | ° C               | ≥ + 100                                |
| Flexibility at low temperatures              | DIN EN 1109             | ° C               | ≤ - 25                                 |
| Reaction to fire                             | DIN EN 11925-2          | -                 | Class E according to<br>DIN EN 13501-1 |

## ADDITIONAL INFORMATION

### KEY FEATURES

- Torch-on application
- Incorporates graphite technology which actively prevents spread of flames on roof
- Excellent low temperature flexibility at -25°C
- SBS modified bitumen
- High tensile strength polyester reinforcement
- Life expectancy in excess of 35 years

### QUALITY ASSURANCE

Proteus Pro-Felt® Endura Mineral Anthracite is manufactured following ISO 9001: 2008 Quality Management System and Environmental Management System approved to ISO 14001: 2004.

## CODES OF PRACTICE & STANDARDS

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1. 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.
  2. The works shall be carried out in accordance with the requirements of;
    - BS 6229:2018 - Flat roofs with continuously supported flexible waterproof coverings -Code of practice.
    - BS 8217:2005 - Reinforced bitumen membranes for roofing Code of practice.
    - BS 8000-0:2014 - Workmanship on construction sites - Introduction and general principles.
    - BS8000-4:1989 - Workmanship on building sites - Code of practice for waterproofing.
    - GRO Green Roof Code of Best Practice - Latest Edition.
    - LRWA Design Guide for Specifiers - Latest Issue.
    - LRWA Hot Melt Code of Practice - Latest Edition.
- Please refer to Proteus Waterproofing's Technical department for project specifications.

## OPERATION

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- For professional use only.

## SAFETY GUIDANCE

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- Use as per Proteus Waterproofing installation instructions/guidance.
- For safety information, please refer to the material safety datasheet.

## LIMITATIONS OF USE

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- Not applicable.

## MAINTENANCE FOR WATERPROOFING

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1. A flat roof should be inspected at least twice yearly; in autumn to ensure it is clear of leaves, dirt and debris, outlets are not blocked and the roof is free draining; in spring to discover and rectify any damage due to weather. Green, blue and other specialist roofs should be inspected in accordance with the designer's original inspection plan.
2. Inspections should include the following elements:
  - 2.1. Examination of ceilings for signs of water penetration or condensation followed by examination of external walls, eaves and soffits for signs of movement;
  - 2.2. The roof should then be inspected for any signs of damage to, or displacement of, the individual layers of construction including, as appropriate, the waterproofing layer, the thermal insulation, the WFRL, the surface protection and flashings;
  - 2.3. The location and extent of any build-up of leaves, moss, plants or debris should be recorded; and
  - 2.4. The mountings of roof top installations such as safety barriers, fall arrest posts, harness bolts and satellite dishes should be examined to ensure their attachment remains waterproof.

3. Maintenance of a flat roof should involve:
  - 3.1. Removal of all accumulated leaves, dirt and debris;
  - 3.2. Clearance of rainwater outlets, downpipes and gutters;
  - 3.3. Replacement of any surface protection which has been dislodged or removed; and
  - 3.4. Cleaning of vents to the underside of a cold roof.
4. Repair/Renewal:

Should inspection discover the need for repair or replacement of any part of the roof, the work should be undertaken as soon as possible but only after appraisal of the original roof design and assessment of the need for modification or improvement. Repairs should be undertaken using materials and techniques compatible with the original work and, if still under an original guarantee, by the original installer. If it is decided to renew part or all of a flat roof, a full assessment of the design should first be undertaken in accordance with Clauses 4 to 6 of **BS6229:2018**. All works of inspection, repair and renewal should be recorded in the owner's building information manual.

## ADDITIONAL MAINTENANCE REQUIREMENTS

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- No additional requirements. See information above.

## GUARANTEES

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

## DISPOSAL

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For information on disposal and environmental hazards, please refer to section 13 of the material safety datasheet.