

# PROTEUS PRO-FELT® ULTIMA PLUS MINERAL CAPSHEET



PRODUCT DATASHEET

v1.0 | AUGUST 2024



## PRODUCT DETAILS

Product name **Proteus Pro-Felt® Ultima Plus Mineral Capsheet**  
Product type Elasto-plastomeric polymer bitumen membrane (APP)

## PRODUCT DESCRIPTION

**Proteus Pro-Felt® Ultima Plus Mineral Capsheet** is a torch on, prefabricated waterproofing membrane made of distilled bitumen and elasto-plastomeric polymers (APP). It contains a single strand composite polyester reinforcement which provides the membrane with good mechanical characteristics and excellent dimensional stability.

**Proteus Pro-Felt® Ultima Plus Mineral Capsheet** can be used as the capsheet in conjunction with **Proteus Pro-Felt® SA Underlay** and **Proteus Pro-Felt® Ultima Plus Sanded Underlay** in built-up roof systems.

## APPLICATION

**Proteus Pro-Felt® Ultima Plus Mineral Capsheet** is suitable for use on the following substrates:

- Concrete
- Timber (*with Proteus Pro-Felt® SA Underlay*)
- Asphalt
- Felt

**Proteus Pro-Felt® Ultima Plus Mineral Capsheet** is a component of the **Proteus Pro-Felt® Ultima Plus** system and suitable for the following areas:

- Flat roofs
- Low sloped roofs

## INSTALLATION

### Substrate preparation

- Repair Substrate defects such as holes, voids, tears, and cracks, using suitable materials
- All loose and friable material must be removed by mechanical means where necessary
- Oil, dust, and debris should be removed by brush and vacuum
- Any defective or decayed areas of the substrate or insulation should be cut out, repaired, and reinstated to provide a solid base
- Surfaces should be sound, clean, dry, free from defects, visible dampness, fungal growth, and corrosion
- Adhesion tests may be required to confirm substrate suitability before installation
- All details should be primed prior to installation.

Substrate	Primer	Underlay
Concrete	Proteus Pro-Prime® Bitumen	Proteus Pro-Felt® Ultima Plus Sanded Underlay
Asphalt	Proteus Pro-Prime® Bitumen	Proteus Pro-Felt® Ultima Plus Sanded Underlay
Felt	Proteus Pro-Prime® Bitumen	Proteus Pro-Felt® Ultima Plus Sanded Underlay
Timber	Proteus Pro-Prime® SA	Proteus Pro-Felt® SA Underlay

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## Installation

- All lap joints must be overlapped and completely sealed as detailed below:

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

- Lay all overlaps with the slope
- Position the membrane sheets staggered, and starting from the lowest point, avoiding creating any overlaps against the slope
- Apply by torch application a **250mm** strip of membrane along all vertical up stands
- Cut the corners of the membrane sheet at a **45°** angle (100mm x 100mm)
- Apply the vertical membrane making sure that it overlaps the horizontal one by at least **100mm**, heating it with a gas torch and squeezing it with a trowel until a bead of compound appears from underneath
- The height of the verticals must be equivalent or superior to the finished surface by at least **150mm**
- The second layer of membrane will be applied astride and over the first one, always in the same direction, and approximately **1/4** of its length from the previous sheet
- Bond the **Proteus Pro-Felt® Ultima Plus Mineral Capsheet** with a propane gas torch to the underlay
- It is necessary to heat the entire surface, except for the side & head laps
- Use a suitable roller to apply pressure over the surface of the membrane to ensure adequate adhesion
- On vertical surfaces greater than **2m** or on very sloped substrates, apply suitable mechanical fixings to the head laps ensuring they are then sealed

## CERTIFICATION

Type	Name	Reference
BBA	Proteus Pro-Felt® Ultima Plus	22/6147

## TECHNICAL INFORMATION

Characteristic	Value	Unit	Standard
Visible defects	No	-	EN 1850-1
Thickness	4 ±5%	mm	-
Mass per unit area	4.5 ±5%	kg/m <sup>2</sup>	-
Straightness	< 20	mm/10m	EN 1848-1
Watertightness	60	kPa	EN 1928
Watertightness after artificial ageing	60	kPa	EN 1296
Maximum tensile strength (L/T)	850/650 ±20%	N/50mm	EN 12311-1

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Characteristic	Value	Unit	Standard
Elongation (L/T)	40/40 ±15%	%	EN 12311-1
Resistance to tearing (L/T)	200/200 ±30%	N	EN 12310-1
Dimensional stability	-0.3	%	EN 1107-1
Cold flexibility	-10	°C	EN 1109
Flow resistance	120	°C	EN 1110
Joint strength (shear resistance)	750/550 ±20%	N/50mm	EN 12317-1
Resistance to impact	1250	mm	EN 12691
Resistance to static loading	20	kg	EN 12730
Reaction to fire	F	-	EN 13501-1

## SIZE, FINISH AND COLOUR

Product Code	Length (m)	Width (m)	Weight (kg)	Colour	Finish
FUPCSM4510	10	1	45	Black	Mineral
FUPCSG4510	10	1	45	Grey	Mineral

## SHELF LIFE AND HANDLING

- The rolls should be stored in an upright position, indoors in a dry 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 materials on stock should be rotated following a first in first out rotation
- Always use relevant safe manual handling techniques relevant to a products size and weight

## MATERIAL

Compound: Elasto-plastomeric polymer bitumen membrane (APP)  
Reinforcement: Single strand composite polyester

## PACKAGING

Felt rolls wrapped with paper seal.

## LIMITATIONS OF USE

For professional use only.

## CHEMICAL PROPERTIES, SAFETY GUIDANCE AND DISPOSAL

Please refer to **Proteus Pro-Felt® Ultima Plus Mineral Capsheet** [Material Safety Datasheet](#).

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## 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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