

## Roofing Underlays

### Vapour Impermeable Underlays

#### Protect A1 T3

Protect A1 T3 is an impermeable roof underlay, produced in the UK. A 'Type HR' underlay, it offers high vapour resistance and complete airtightness and has been developed to overcome the disadvantages of Type 1F and 5U felts and second generation plastic sheet materials. Protect A1 T3 is CE marked and is suitable for use in all pitched roofs.

The roof underlay should have a polymeric composition and be of four ply construction with a waterproof core that is laminated and protected between two layers of non-woven spunbond polypropylene and incorporating a reinforcing grid on the upper surface. The underlay should have an embossed dark grey/black upper and lower surface, with print on the upper surface (as installed).

The membrane should provide a satisfactory underlay in tiled and slated pitched roofs constructed in accordance with BS 5534:2018. It should be able to be installed on new or existing buildings, being flexible at low temperatures with resistance to tearing by nails and to damage from handling on site. The underlay should be used as a secondary weather resistant layer for protection against wind driven rain and snow, tile wind-uplift and dust ingress.

The mass of the underlay is 170g/m<sup>2</sup> and comes in roll sizes of 1m x 45m or 1.5m x 30m. Water vapour transmission resistance to be: 295MNs/g (59 S<sub>d</sub>) to BS EN ISO 12572 to meet permeability requirements recommended by TRADA and NHBC. Resistance to wind uplift: unrestricted use across UK and Ireland (Zones 1-5) in accordance with BS 5534:2018. With a batten gauge of ≤345mm, the underlay should have a resistance to wind pressure of 2306 Pa. Underlay to be laid in accordance with BS 5534: BS8000: Part 6 and manufacturer's instructions. The product's resistance to water penetration to BS EN 1928 with mods should be Pass, Class W1. Nail tear strength should be 335 (MD along roll) and 420 (CD across roll) to BS EN 12310-1 with mods and tensile strength should be 552 (MD along roll) and 335 (CD across roll) to BS EN 12311-1 with mods.

In warm roof build-ups, additional ventilation must be introduced when using a HR underlay, to conform to BS 5250. In warm-roof applications, 25,000mm<sup>2</sup>/m of ventilation is required at eaves or low level and 5,000mm<sup>2</sup>/m at ridge or high level. In cold-roof build-ups, BS 5250 requires 10,000mm<sup>2</sup>/m of ventilation at eaves or low level and 5,000mm<sup>2</sup>/m at ridge or high level, with the implementation of a well-sealed ceiling. To ensure the integrity of a well-sealed ceiling, a separate vapour control layer shall also be used on the warm side of the insulation.

If the underlay is to be used with rigid sarking, the counter battens (minimum 12mm deep) shall be located between the sarking and the underlay, with a maximum drape of the underlay limited to 10mm. If the product is laid directly onto the sarking, counter battens and tiling battens shall be used above to prevent trapping of moisture on the top surface of the underlay.

**Manufacturer:** Protect Membranes, a division of Building Product Design, 2 Brooklands Road, Sale, Cheshire, M33 3SS, United Kingdom. Tel: +44 (0)161 905 5700, Fax: +44 (0)161 905 2085. E-mail: info@protectmembranes.com Website: www.protectmembranes.com/a1t3 STA Assured Gold accredited company and associate members of the Structural Timber Association and the Modular and Portable Build Association.

Product Reference: Protect A1 T3 Type HR Roof Underlay, with unrestricted wind uplift use (Zones 1-5) at 345mm batten gauge.

## Accessories

### **Protect Fulmetal RediRoll ventilated dry ridge/hip roll system:**

Protect Fulmetal RediRoll is a universal dry fixed ventilated ridge and hip system, produced in the UK. Manufactured from aluminium, the product overcomes the durability and weathering issues associated with fabric based systems. This product should be used with Protect A1T3 as part of a warm or cold roof system to provide a ventilation area equivalent to 5,000mm<sup>2</sup>/m to ensure adequate ventilation to conform to BS 5250.

### **Protect OFV Eaves Skirt:**

The Protect OFV Eaves Skirt replaces both the underlay into the gutter and the traditional tilting fillet. Used to avoid sagging and ponding of the underlay behind the fascia and ensure correct water discharge into the gutter. Manufactured from robust PVC-U construction, this resists impact and UV degradation over time and will not rot in the gutter unlike bitumen derivatives.