

## Roofing Underlays

### Vapour Impermeable Underlays

#### Protect A1

Protect A1 is a third generation impermeable roof underlay, produced in the UK. A 'Type HR' underlay, it offers high vapour resistance and complete airtightness and developed to overcome the disadvantages of Type 1F and 5U felts and second generation plastic sheet materials. Protect A1 is CE marked and independently approved by BM TRADA, with a Q Mark certification and is suitable for use in all pitched roofs.

The roof underlay should have a polymeric composition, comprising of a polypropylene non-woven layer, coated on one surface with a continuous film of polypropylene / polyethylene blend. The underlay should be black on both upper and lower surfaces, 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 145g/m<sup>2</sup> and it has a thickness of 0.6mm, coming in roll sizes of 1m x 45m or 1.5m x 30m. Water vapour transmission resistance: 112MNs/g (22 Sa) 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 has a resistance to wind pressure of 1732 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 230 (MD along roll) and 234 (CD across roll) to BS EN 12310-1 with mods and tensile strength should be 287 (MD along roll) and 274 (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 BS5250. 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, BS5250 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.



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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 underlay 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/a1 STA Assured Gold accredited company and associate members of the Structural Timber Association and the Modular and Portable Build Association.

Product Reference: Protect A1 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 A1 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.

