



Protect Membranes
2 Brooklands Road, Sale, Cheshire M33 3SS

Telephone **0161 905 5700**
Fax **0161 905 2085**
Email **info@protectmembranes.com**
Website **www.protectmembranes.com**

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Construction Membranes

Vapour Control Layers & Airtightness Membranes

Protect VC Foil Ultra

Protect VC Foil Ultra is a reflective, low emissivity, insulating air and vapour control layer used internally on timber frame or masonry construction in walls, ceilings or floors to ensure significant thermal benefits. Protect VC Foil Ultra is CE marked and independently approved by BM TRADA, with a Q mark certification and is produced in the UK.

Air and vapour control layer to be non-woven PP core, of triple ply construction and with an impermeable high purity aluminium foil layer, with a product weight of 150 g/m². Membrane to ensure low emissivity performance with an aged thermal resistance (horizontal heatflow) when used in a wall build up with a of 0.78m²K/W and unaged thermal resistance of 0.81 m²K/W to BS EN ISO 8990 & BS EN 15976, when facing into an unventilated airspace ≥20mm to block infra-red radiation and enhance thermal performance of airspace. When used in a ceiling build-up, facing into an unventilated airspace of ≥13mm, aged thermal resistance (vertical heatflow) to be 0.52 m²K/W and unaged thermal resistance of 0.53 m²K/W to BS EN ISO 8990 & BS EN 15976. Aged thermal resistance incorporating printed logos and in some cases unaged thermal resistance can be used (Protect Technical department can advise further by request). Product to be independently tested and verified by BM TRADA. Water vapour transmission resistance of 4946 MNs/g (989 S_d) to EN 1931 to deliver vapour control properties and help avoid condensation risk in accordance with BS 5250. Emissivity of the surface unaged to BS EN 15976 should be 0.02 and aged 0.03, independently tested by a European notified laboratory. The product's resistance to water penetration to BS EN 1928 with mods should be Class W1. Nail tear strength should be 239 MD (along roll) and 243 CD (across roll) to EN 12310-1 with mods and tensile strength should be 210 (MD along roll) and 205 (CD across roll) to BS EN 12311-1 with mods. The product should have a weight of 150 g/m² and have a thickness of 0.48mm, coming in roll sizes of; 1.35m, 1.5m, 2.7, 3m x 100m and 2.7m x 100m. Membrane to feature integrated tape to seal laps as an optional extra on 1.35m & 1.5m x 50m product.





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Membrane to be printed in red ink to ensure low emissivity and to signpost use internally on the wall structure. To be used on the warm side of the insulation in conjunction with external breather membrane Protect TF200 Thermo or Protect Thermo Extreme on the cold side of the insulation to further enhance the thermal performance of the cavity wall structure, helping to achieve low U-values and meet current Building Regulations Part L in UK and Ireland. On timber frame panel construction, to be installed on the warm side of the insulation with Protect TF InterFoil fitted on the warm or cold side, in conjunction with external breather membrane Protect TF200 Thermo or Protect Thermo Extreme to deliver thermal efficiency. Manufacturer to provide U-value calculations and condensation risk analysis to ensure target specification is achieved using appropriate thermal bridge percentage for timber studs in accordance with BR 443:2006 Conventions for U-values (section 4.5.1 (ii)) and relevant correction level in accordance with Table F1 of BS EN ISO 6946:2017 Building components and building elements – Thermal transmittance – Calculation methods. Air and vapour control layer to be fitted into wall/ceiling/floor in accordance with BS 5250, BS 9250 and manufacturer's instructions.

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/vcfoilultra

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

Product Reference: Protect VC Foil Ultra low emissivity insulating air and vapour control layer, with aged thermal resistance of $0.78\text{m}^2\text{K/W}$ (incorporating printed logos).

Accessories

Protect range of sealing tapes to help reduce uncontrolled air leakage in all forms of building construction.

Protect Reveal Tape:

Single-sided, high-tack, durable and woven reinforced reflective tape, for dressing into awkward details without tearing. Performs the airtightness function between internal AVCL and external membrane in and around doors and window reveals.





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Protect Reflective Reinforced Tape:

Single-sided, high-tack, reflective aluminium spun bond reinforced tape. Designed for sealing overlaps of timber frame membranes, air barriers and vapour control layers and for sealing around service penetrations. Can be used for internal or external applications.

Protect Reinforced Universal Tape:

Single-sided, high-tack, UV and heat stabilised spun bond reinforced tape. Designed as general purpose tape for sealing overlaps of timber frame membranes, air barriers and vapour control layers. Can be used for internal or external applications.

Protect VC Foil Tape:

Single-sided, high-tack, reflective aluminium tape. For sealing simple overlaps of Protect VC Foil Ultra. For internal use only.

