

# VC FOIL ULTRA

## LOW EMISSIVITY AIR AND VAPOUR CONTROL LAYER

**P**rotect VC Foil Ultra is a robust, highly reflective air and vapour control layer (AVCL), offering low emissivity to enhance the thermal performance of walls, ceilings and floors. Suitable for timber, masonry or steel construction, VC Foil Ultra provides strong insulating properties when installed facing into a still airspace. This ensures significant thermal and performance benefits when compared with conventional vapour control materials.

Offering excellent thermal resistance, this AVCL is available with integrated tape to seal the overlaps and ensure radiant heat is reflected back into the structure, minimising absorption and energy transfer. When using integral tape, a super strength adhesive strip is used on the outer edges of the membrane to ensure a fully bonded solution and quick installation. This ensures a more reliable seal than traditional overlap tape. Even when joined without an underlying substrate, this will reduce air leakage and allow mechanical fixings to be installed through the double layered sealing laps. Protect tapes can also be supplied separately to ensure a fully airtight finish.



Produced in the UK of triple ply construction, Protect VC Foil Ultra is supplied with red branding to aid ease of installation on the warm side of the insulation. It can be paired with the Protect TF200 Thermo or Protect Thermo Extreme breather membranes on the cold side of the insulation to deliver optimum cost savings and the ultimate in thermal efficiency.



**Aged  
Thermal  
Resistance  
0.78m²K/W**

### BENEFITS

- Delivers an airtight system with sealed laps.
- Excellent air and vapour resistance.
- Helps avoid condensation risk in accordance with BS 5250.
- Available with integrated tapes for quicker installation and reliable, effective joint sealing.
- Low emissivity reflective surface enhances the thermal performance of the structure when used in a still air cavity.
- Corrosion and damage resistant reflective surface.
- Excellent nail tear resistance.
- High tensile strength, tough and durable.
- Easy to cut and lightweight to handle.
- BM TRADA independently certified for all applications and compliant with Building Regulations.
- Class 1 surface spread of flame to BS 476-7.



**Specification clause**  
Air and vapour control layer to be Protect VC Foil Ultra supplied by Protect Membranes, 2 Brooklands Road, Sale, Cheshire M33 3SS, Telephone: 0161 905 5700 Fax: 0161 905 2085. Email: info@protectmembranes.com. Air and vapour control layer to be independently approved and of triple ply construction with non-woven core and solid corrosion resistant aluminium layer with a thermal resistance of 0.78m<sup>2</sup>K/W to BS EN ISO 8990 & BS EN 15976 (aged – incorporates printing) and a vapour resistance of 4946 MNs/g / 989 S<sub>d</sub>. Air and vapour control layer to be fitted into wall/ceiling/floor\* on the warm side of the insulation in accordance with BS 5250, BS 9250 and manufacturer's instructions. \*Delete as required.

## INSTALLATION

Protect VC Foil Ultra is installed on the warm side of the structure immediately adjacent to the insulation and can be used on walls, ceilings and floors to significantly improve thermal performance and reduce air leakage in any construction. This ensures Building Regulations & Airtightness Standards are met.

## Dimensions

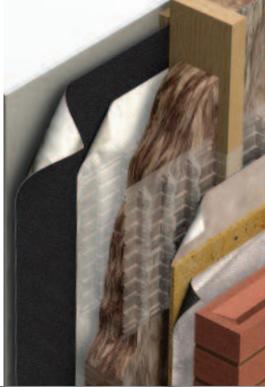
1.35m x 50m, 1.5m x 50m (both 1.35m & 1.5m widths include option with integral lap and sealing tapes), 2.7m x 50m, 2.7m x 100m and 3.0m x 50m.

For more information visit

[www.protectmembranes.com/vcfoilultra](http://www.protectmembranes.com/vcfoilultra)

### Top tip

Use the membrane solution of Protect TF200 Thermo/ Thermo Extreme, TF InterFoil and VC Foil Ultra within a timber frame panel to achieve thermal efficiency and potential insulation cost savings.



### Improvement in thermal resistance values using Protect VC Foil Ultra with reflective technology

| Wall heat flow | Airspace (mm) | Unventilated airspace:                         |  | Improvement with Protect VC Foil Ultra |
|----------------|---------------|--|--|--|
|                |               | With no special treatment (m <sup>2</sup> K/W) | With Protect VC Foil Ultra facing into airspace (m <sup>2</sup> K/W) |  |
| Horizontal     | ≥20           | 0.18   | 0.78* (aged)   | 333%                                   |
| Upwards        | ≥13           | 0.16   | 0.52* (aged)   | 225%                                   |
| Downwards      | 50            | 0.21   | 1.53   | 629%                                   |

### PERFORMANCE

|  | MD (along roll)                 | CD (across roll) |
|--|---------------------------------|------------------|
| Nail tear strength (N) to EN 12310-1 with mods   | 239                             | 243              |
| Tensile strength (N/50mm) to EN 12311-1 with mods  | 210                             | 205              |
| Water vapour resistance to EN 1931   | 4946 MNs/g / 989 S <sub>d</sub> |                  |
| Thermal resistance (m <sup>2</sup> K/W) heat flow horizontal to BS EN ISO 8990 & BS EN 15976 (incorporates printing) | 0.78* (aged)                    | 0.81* (unaged)*  |
| Emissivity of the surface (ε) unaged to BS EN 15976  | 0.02**                          |                  |
| Emissivity of the surface (ε) aged to BS EN 15976  | 0.03**                          |                  |
| Weight (g/m <sup>2</sup> )   | 150                             |                  |
| Resistance to water penetration to BS EN 1928 with mods  | Class W1                        |                  |

\* Independently tested by National Physical Laboratories (NPL) in a typical UK house timber frame wall cavity and verified by BM TRADA.

\*\* Independently tested by a European notified laboratory.

\* Unaged result can be used if the vapour control layer is located in building structures which are in low humidity environments as per BS EN 15976.

### Related products

Protect Cavit-E clip: [www.protectmembranes.com/caviteclip](http://www.protectmembranes.com/caviteclip)

Protect TF200 Thermo breather membrane: [www.protectmembranes.com/tf200thermo](http://www.protectmembranes.com/tf200thermo)

Protect Thermo Extreme breather membrane: [www.protectmembranes.com/thermoextreme](http://www.protectmembranes.com/thermoextreme)

Protect TF InterFoil breather membrane: [www.protectmembranes.com/tfinterfoil](http://www.protectmembranes.com/tfinterfoil)

Protect reflective reinforced tape: [www.protectmembranes.com/protecttapes](http://www.protectmembranes.com/protecttapes)

Stockist's stamp



### PROTECT MEMBRANES

2 Brooklands Road, Sale, Cheshire M33 3SS

Tel: 0161 905 5700 Fax: 0161 905 2085

Email: info@protectmembranes.com Web: www.protectmembranes.com

Protect Membranes maintains a policy of continuous development and reserves the right to amend product specifications without notice.



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