glidevale protect

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September 2021

TF INTERFOIL

LOW EMISSIVITY INSULATING BREATHER MEMBRANE

Protect TF InterFoil is an innovative, highly reflective and insulating breather wall membrane for use with an open or closed timber frame panel in combination with Protect TF200 Thermo and Protect VC Foil Ultra, enhancing the wall's thermal performance and delivering low U-values. When installed facing into an unventilated airspace within the studs, Protect TF InterFoil effectively blocks infra-red radiation and increases the thermal performance of the airspace, and hence the overall U-value of the wall when compared to fully insulated construction.

The increasingly onerous U-value targets required by Building Regulations has meant that the industry has had to move to the more expensive, rigid, high density insulation boards to achieve compliance. However, the inclusion of Protect TF InterFoil in a typical 140mm deep timber stud section can now achieve U-values as low as 0.18W/m²K* when positioned either side of a 100mm fibrous or EPS insulation layer, offering significant savings to the fabricator and developer alike.
The membrane can also be used in conjunction with PIR board in a closed or open panel system, resulting in a reduction of insulation thickness required and ultimate material cost savings.

Thermal resistance and emissivity has been tested in accordance with BS EN ISO 8990 and BS EN 16012.

*When used in conjunction with Protect TF200 Thermo and Protect VC Foil Ultra.

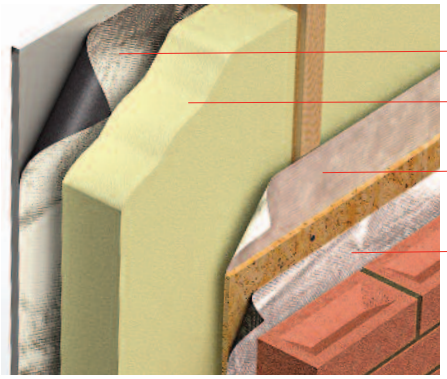
BENEFITS

- Allows use of 0.032/0.035 lambda fibrous insulation to reduce cost and improve the acoustic performance of the wall.
- Enables 0.03/0.032 lambda EPS alternatives to be used within timber frame construction.
- Can deliver insulation thickness and cost savings when used with 0.022 lambda PIR board.
- Low emissivity reflective surface enhances the thermal performance of the wall.
- Meets the permeability requirements recommended by TRADA and NHBC to prevent interstitial condensation.
- Helps meet the more onerous regulatory requirements.
- Corrosion and damage resistant reflective surface.
- UV and heat stabilised for long term durability.
- Unaffected by conditions found within timber frame walls.

Aged Thermal Resistance 0.77m²K/W

NBS Source PARTNER

Typical build up with PIR insulation



VC Foil Ultra insulating air and vapour control layer facing into airspace

100mm PIR insulation board fixed between studs

TF InterFoil insulating breather membrane facing into airspace

TF200 Thermo insulating breather membrane facing into 50mm unventilated cavity

Installation

Protect TF InterFoil is laid flat across the studs during construction of the wall and faces into a 20mm airspace. For mineral wool slab insulation this is created by the use of Protect Cavit-E Trays fitted to the studs. These maintain the cavity depth once the insulation slabs are inserted. For semi-rigid mineral wool such as Knauf Earthwool Building Slab RS60 or Rockwool Timber Slab, the use of the Protect Cavit-E Tray should not be required, please consult with our Technical team. When using Jablite JTWS-TF EPS boards, the integral ribs of the insulation will ensure that a 20mm airspace is maintained on both sides of the insulation without the need for Protect Cavit-E Trays.

Roll size

Nominal: 2.4m x 100m and 1.2m x 100m roll.
Weight: 23.52kg and 11.76kg.

Protect Cavit-E Tray

The Cavit-E Tray has been designed specifically for use with Protect Reflective Technology membranes and mineral wool slab insulation. They are fixed to the top, middle and bottom of each stud before the TF InterFoil is fitted to maintain the 20mm low emissivity airspace.

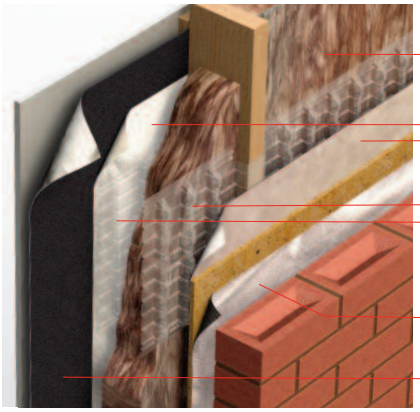
Related products

Protect TF InterFoil is an integral part of the Protect Reflective Technology range and should be used in conjunction with Protect VC Foil Ultra and Protect TF200 Thermo to maximise thermal efficiency and material cost savings.

PERFORMANCE

	MD	CD
Nail tear strength (N) to BS EN 12310-1 with mods	85	85
Tensile strength (N/50mm) to BS EN 12311-1 with mods	155	105
Thermal resistance (m^2K/W) (incorporates printing)	0.77 (aged)	
Water vapour resistance to BS EN ISO 12572	0.40 (MNs/g) / 0.08S_d	
Watertightness	Class W3 (aged)	
Weight	95gsm	

MD = machine direction (along roll), CD = cross direction (across roll).



Mineral wool insulation

Mineral wool insulation slabs fitted between studs.

TF InterFoil insulating breather membranes facing into airspaces.

Cavit-E Trays fitted to both sides of the insulation to maintain minimum 20mm airspaces.

TF200 Thermo insulating breather membrane.

VC Foil Ultra insulating AVCL facing into service void.

Specification clause

Timber frame interlayer reflective breather membrane to be Protect TF InterFoil supplied by Glidevale Protect, 2 Brooklands Road, Sale Cheshire, M33 3SS. T: +44 (0)161 905 5700 F: +44 (0)161 905 2085. Email: info@glidevaleprotect.com.

Interlayer membrane to be a non-woven PP core, with a permeable, high purity aluminium foil layer with a thermal resistance of 0.77m^2K/W (aged - incorporates printing) and a vapour resistance of 0.40MNs/g / 0.08S_d to BS EN ISO 12572.

Interlayer membrane to be fitted in conjunction with Protect Cavit-E Trays* at top, middle and bottom of studs when using mineral wool slabs to ensure the provision of a 20mm airspace.

* Cavit-E Trays not required if using PIR, Jablite JTWS-TF EPS insulation and Rockwool/Knauf semi-rigid mineral wool slab.

Jablite JTWS-TF insulation

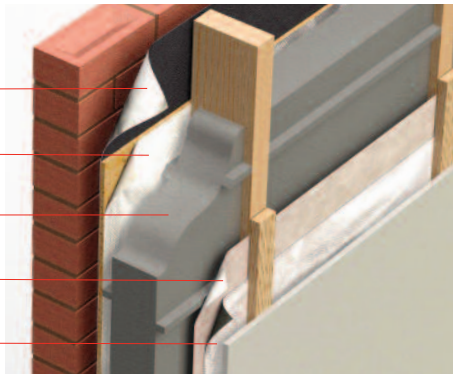
TF200 Thermo insulating breather membrane.

TF InterFoil insulating breather membrane facing into airspace.

Jablite insulation slabs with integral ribs fitted both sides between studs.

TF InterFoil insulating breather membrane facing into airspace.

VC Foil Ultra insulating AVCL facing into service void.



Stockist's stamp

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