glidevale protect

Condensation Control

Thermal Efficiency

THINK FABRIC FIRST – REACH YOUR ENERGY EFFICIENCY TARGETS • GLIDEVALE PROTECT •

THERMO EXTREME

LOW EMISSIVITY INSULATING BREATHER MEMBRANE

Protect Thermo Extreme is a waterproof, low emissivity, highly reflective insulating breather membrane which enhances the thermal performance of timber frame walls, Structural Insulated Panels (SIPs), Cross Laminated Timber (CLT) panels and steel frame construction. Designed for use externally on buildings which are sited in very severe, exposed locations, the product is aligned to STA Advice Note 18, where it is recommended that membranes with Class W1 water penetration resistance are installed in these areas.

Aged thermal resistance 0.77 m²K/W

Protect Thermo Extreme has been developed from the tried and tested Protect TF200 Thermo range and additionally utilises microporous film and microperforation technology. Protect Thermo Extreme is CE and UKCA marked with full, independent third party certification by BM TRADA, meeting the requirements of BS EN 13859-2, TRADA and NHBC.

Produced in the UK of five ply construction, Protect Thermo Extreme's innovative design provides a highly reflective yet vapour permeable surface which protects the outer sheathing from moisture and ensures the water vapour passes into the external wall cavity. When installed with the foil facing into an unventilated airspace, this provides enhanced thermal performance by effectively blocking infra-red radiation, helping to deliver a low overall U-value of the wall.

BENEFITS

- **Aligned with STA Advice Note 18, with aged thermal resistance of 0.77 m²K/W, incorporating printing and using typical 600 mm stud centres.**
- **Achieves Class W1 water resistance to BS EN 1928.**
- **Class 1 surface spread of flame to BS 476-7.**
- **Low emissivity reflective surface enhances the thermal performance of the wall.**
- **Resists the passage of water, wind blown snow and dust into the interior of the building.**
- **Easy to cut and handle with high nail tear resistance.**
- **Helps to meet overall U-value requirements set down in Building Regulations Part L1A & Notional Dwelling Specifications.**
- **UV and heat stabilised.**
- **Meets the permeability requirements recommended by TRADA and NHBC.**
- **Corrosion and damage resistant reflective surface.**
- **High burst strength, tough and durable.**

Product Certification bmtrada Q-MARK CERTIFICATION

bimstore

NBS Source PARTNER

THERMO EXTREME

LOW EMISSIVITY INSULATING BREATHER MEMBRANE

Description

Protect Thermo Extreme breather membrane is a flexible micro-perforated, multi layer laminated, low emissivity breather membrane sheet comprising a non-woven polypropylene (PP) spun-bound fibre core, microporous film, co-extruded low density polyethylene (LDPE) layer and a reflective aluminium foil surface that is thermally bonded together.

Dimensions

Roll size: 3.0 m x 100 m.
Roll weight: 45.90 kg.

Appearance

High purity aluminium micro perforated upper surface and embossed lower surface.

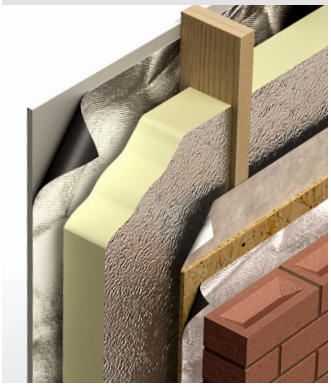
Compatibility

As with all nonwoven spunbond materials, do not lay in direct contact with undried timber preservatives (whether water or solvent based).

For more information visit
www.glidevaleprotect.com/thermoextreme

TOP TIP

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



Specification clause:

Low emissivity insulating breather membrane for the external wall to be Protect Thermo Extreme supplied by Glidevale Protect, 2 Brooklands Road, Sale, Cheshire M33 3SS.
T: +44 (0)161 905 5700
F: +44 (0)161 905 2085
E: info@glidevaleprotect.com

Breather membrane to be five ply construction to include a microporous film between two layers of spunbond, with a permeable, high purity aluminium foil layer on the upper surface that is micro perforated and a white/grey under surface.

Product to provide a thermal resistance of 0.77 m²K/W to BS EN ISO 8990 & BS EN 15976 (aged – incorporates printing), a vapour resistance of 0.47 MNs/g / 0.093 S_d(m) to BS EN ISO 12572 and a Class W1 resistance to water penetration in alignment with STA Advice Note 18.

Breather membrane to be fitted into wall on the cold side of the insulation in accordance with TRADA recommendations and manufacturer's instructions.

IMPROVEMENT IN THERMAL RESISTANCE VALUES

Wall heat flow	Airspace (mm)	Unventilated airspace		Improvement with Thermo Extreme
		with no special treatment (m²K/W)	with Thermo Extreme facing into airspace (m²K/W)	
Horizontal	>20	0.18	0.77	**328%**

PERFORMANCE

	MD	CD
Nail tear strength (N) to EN 12310-1 with mods	177	191
Tensile strength (N/50 mm) to EN 12311-1 with mods	245	135
Water vapour resistance to BS EN ISO 12572	0.47 (MNs/g) & 0.093 S_d (m)	
Total thermal resistance (m²K/W) to BS EN ISO 8990 (incorporates printing)	0.77* (aged)	
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/m²)	145	
Resistance to water penetration to BS EN 1928 with mods	Pass - Class W1	

* Independently tested by National Physical Laboratory (NPL) in a typical UK house timber frame wall cavity.
** Independently tested by a European notified laboratory
MD = Machine Direction (along roll). CD = Cross Direction (across roll).

Related products

Protect VC Foil Ultra membrane: www.glidevaleprotect.com/vcfoilultra
Protect TF InterFoil breather membrane: www.glidevaleprotect.com/tfinterfoil

Glidevale Protect, 2 Brooklands Road, Sale, Cheshire, M33 3SS
T: +44 (0)161 905 5700 F: +44 (0)161 905 2085
info@glidevaleprotect.com
Glidevale Protect
www.glidevaleprotect.com

glidevale protect | building product design

CI/SfB (47) Ln6
Uniclass Pr_25_57_10_68

STRUCTURAL TIMBER ASSOCIATION Member | mpba modular & portable building association | ITFMA IRISH TIMBER FRAME MANUFACTURERS' ASSOCIATION | OFFSITE ALLIANCE Delivering change for the industry | STA ASSUREGOLD | LR CERTIFIED ISO 9001 · ISO 14001 ISO 45001

910011 Issue 3 July 2022