MEDITE® VENT

MEDITE VENT is a high performance breathable sheathing panel suitable for use in all types of timber frame structures. Combining high racking strength (in excess of Category 1 requirements) with high vapour permeability and weather resistance, it is the perfect choice for the outer sheathing layer in 'diffusion open' breathable timber frame walls.

FEATURES AND BENEFITS

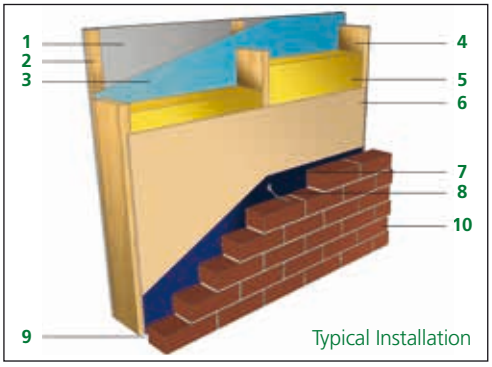
- Integral component in Passive House Institute (PHI) Certified MEDITE SMARTPLY PROPASSIV building systems, also incorporating SMARTPLY PROPASSIV Airtight OSB
- Breathable sheathing panel suited to 'water vapour diffusion open' wall designs
- Very low water vapour diffusion factor to prevent condensation (Tested by Fraunhofer Institute for Building Physics)
- High performance – in excess of Category 1 racking strength (tested by independent UKAS accredited laboratory)
- Zero added formaldehyde contributing to healthy environments
- CE Marked in accordance with EN 13986
- Manufactured from FSC® certified timber from our own forests

PROPERTIES

MEDITE VENT complies with the requirements of EN 622-5 MDF.RWH and EN 14964 for use in rigid underlays in roofing and walls.

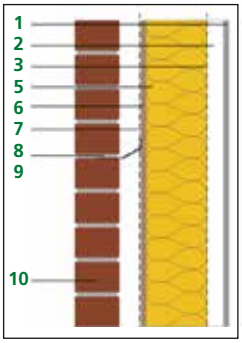
STUCTURAL AND PHYSICAL PROPERTIES

PROPERTY	UNITS	STANDARD	VALUES
Thickness	mm	EN 324	12
Moisture Content	%	EN 322	4-9
Modulus of Rupture	N/mm²	EN 310	20
Modulus Elasticity	N/mm²	EN 310	2000
Internal Bond	N/mm²	EN 319	0.65
Swelling in thickness 24h	%	EN317	8
Water impermeability	-	EN 12467	Pass
Water vapour diffusion	μ	EN 12572	9.7
	Sd (m)		0.116
Vapour resistance	Mns/g	EN 12086	0.582
Racking strength	KN/m	EN 594 (BS 5268)	2.0 (Category 1 racking)
Thermal conductivity	W/(m.K)	EN 13986	0.1
Release of formaldehyde	Class	EN 13986	E1
Formaldehyde release	PPM	CARB Phase 2	0.01
Reaction to fire	Class	EN 13986	D-s2, d0



Typical Installation

1 Inner lining
2 Timber batten providing service void
3 SMARTPLY PROPASSIV (recommended)
4 Timber stud
5 Insulation
6 MEDITE VENT
7 Breather membrane
8 Stainless steel wall tie
9 Ventilated and drained cavity
10 Rainscreen cladding



TIMBER FRAME SHEATHING PANEL

MEDITE VENT is classified as a structural sheathing panel which is suitable for use in humid conditions, Service Class 2 Conditions to Eurocode 5 (EN 1995-1-1). It is suitable for use in biological hazard classes 1 and 2 of EN 335-3.

MEDITE VENT panel fixing properties have been evaluated for typical fasteners used in the timber construction industry. The characteristic lateral load carrying capacities ($F_{v,Rk}$) for fasteners loaded in single shear in C16 timber are shown as below:

FASTENER TYPE	$F_{v,Rk}$
2.9*50mm smooth nails	690 N
3.1*50mm smooth nails	778 N
2.7*50mm threaded nails	641 N

The lateral shear capacity of fasteners can be used for racking design to EN 1995-1-1. The results are validated with racking tests performed in accordance with EN 594.

MEDITE® VENT

INSTALLATION

When installing MEDITE VENT panels a 3mm expansion gap should be left around the edges of the panel to accommodate any movement resulting from changes in humidity. It is essential that the gaps are kept free from plaster, mortar and other debris during construction.

MEDITE VENT may be installed with typical timber fixings such as nails (smooth and threaded), staples and woodscrews. Typical specified nail diameters range from 2.7mm to 3.35mm depending on the building class and method of driving. The smaller of these diameters is preferable for 38mm thick studs to reduce the possibility of splitting. All fixings should be a minimum of 50mm in length or 2.5 times the thickness of the panel, whichever is greater.

Fixings should be galvanised, stainless steel or have similar corrosion resistant properties.

The type size and spacing of fixings should be confirmed by the timber frame panel designer.

Fixings should be spaced at maximum 150mm centres along panel perimeters and at 300mm centres on intermediate studs. Fixings must be at least 10mm from the edge of the panel.

In order to avoid buckling, fixings should commence at the top centre of the panel and continue outwards and downwards.

MEDITE VENT is suitable for sheathing timber frame wall panels with stud framing not less than 38mm in width and at a maximum of 600mm centres. Suitable sawing, routing and drilling tools should always be used.

During and especially after site erection, the timber frame wall panels must be protected from the weather using a permanently fixed approved breather membrane.

HYGROTHERMAL DESIGN

Due to its very low water vapour diffusion factor MEDITE VENT is principally adopted as sheathing in applications where drying of the structure is required. An approved breather membrane is recommended, and is a requirement of some building control authorities. When used in combination with MEDITE VENT, it is important to ensure that the water vapour diffusion factor is equivalent or lower to that of MEDITE VENT, to ensure that wall breathability is not compromised.

A condensation risk analysis or advanced hygrothermal assessment of composite wall systems is recommended to ensure that the construction will not be at risk of moisture damage throughout the life of the building. Detailed recommendations for control of condensation are given in BS 5250 which now refers to EN ISO 13788 as the method of calculation (Glaser method) but more modern and advanced methods of hygrothermal simulation are recommended, as detailed in EN 15026.

SUPPLY

1197 x 2697mm as standard,12 x 1197 x 2397mm. Other sizes and thicknesses available on request subject to minimum order quantities.

APPEARANCE

MEDITE VENT retains the light tan colour of the wood fibre from which it is manufactured.

FIRE RATING

MEDITE VENT is expected to achieve a fire class rating of Euroclass D within European classification.

STORAGE

MEDITE VENT panels should be stored horizontally and lifted clear of the floor using dry bearers as supports. Individual bearers should be of equal thickness and placed at not more than 600mm centres.

SERVICE

For further information relating to transportation, handling, cutting or technical advice please contact MEDITE Technical Support Personnel:

UK: +44 (0) 1322 424900
Ireland: +353 5 181 0205
Germany: +49 32221097221
France: +33 975189830
Netherlands: +31 858886230
Belgium: +32 28086256

All MEDITE MDF products supplied for use in the construction and civil engineering industries are CE marked according to the requirements of the harmonised European standard for wood based panels EN 13986. This provides the necessary assurance to customers and users that MEDITE conforms with the European MDF standard, EN 622-5 and meets all the essential requirements for the Construction Products Regulation (supersedes Construction Products Directive) that are relevant to the product.

In accordance with the provisions of Third Party Certification required within the Final Regulations Order of the Airborne Toxic Control Measure (ATCM) by the California Air Resources Board (CARB) all MEDITE MDF products are CARB Phase 2 Compliant. The approved Third Part Certifier (TPC) Entwicklungs-und Pruflabor Holztechnologie Gmbh (EPHTPC No W-08-010) is contracted to MEDITE to perform the quarterly assessment of the factory production control and to have stipulated formaldehyde tests carried out by the accredited EPH test laboratory.

STRUCTURAL TIMBER ASSOCIATION

PASSIVE HOUSE ASSOCIATION OF IRELAND

FSC www.fsc.org The mark of responsible forestry FSC® C020700

CE

iPHA member

Passivhaus Trust MEMBER The UK Passive House Organisation

V 05/17