

Sheathing Board



Key Features

- High Racking Strength
- Vapour permeable
- Ultra Low Formaldehyde Emissions
- Durability under Class 1 and 2 conditions
- Standard 1200 x 2400 sheet size
- PEFC certification
- CE Marked

What is Panelvent® DHF?

Panelvent® DHF is a structural MDF.RWH fibreboard manufactured in accordance with EN 622-5:2004.

Panelvent® DHF sheathing board has been developed to combine high racking strength and durability under service class 1 and 2 conditions.

Panelvent® DHF is used as a vapour permeable sheathing board for the timber frame construction industry and as an alternative to the more traditional OSB and plywood. It comes into it's own where vapour open (breathing wall) construction has been specified.

Panelvent® DHF is designed be used on the outer face of insulated wall framing due to it's high vapour permeability and high strength. We recommend it's use with OSB sheathing and/or vapour check layer on the internal face however the wall make-up must be checked by a qualified person to ensure condensation does not occur. In many situations the application of a breather membrane is not required, unless in areas of severe exposure, where rain screens or timber cladding are to be used or where required by the NHBC or the local authority.

When used in timber frame construction, Panelvent® DHF sheathing boards must only be used where there is a fully vented cavity.

Manufacturing Process

Panelvent® DHF is manufactured on a highly modern hot press dry process ContiRoll line to EN 622-5:2004 using a moisture resistant 100% formaldehyde free PU resin as the binding agent.

Environmental Advantages

Panelvent® DHF is manufactured using sawdust and woodchips from debarked coniferous softwood sourced from a neighbouring sawmill and cultivated, sustainable forests.

Panelvent® DHF is manufactured using approx 88% dry wood fibres.

The board is PEFC certified, Panelvent® DHF sheathing has an ultra low formaldehyde emission of less than 0.03ppm to comply with strict European directives.

Panelvent® DHF is more vapour open than many types of sheathing materials currently in use throughout the construction industry and therefore lends itself to be used in conjunction with suitable hygroscopic insulation materials to create "breathing wall construction". Typically the water vapour transmission resistance of plywood is 4.78 MNs/g whereas Panelvent® DHF is 0.715 MNs/g.

Breather Membrane

Panelvent® DHF sheathing boards have a natural wax additive and therefore, in certain applications, there is no requirement for the introduction of a breather membrane. However a breather membrane should be used where the external finish is a rain screen, timber boarding (ie: shiplap) or in areas of high exposure where wind driven rain could penetrate the external finishes.

For projects where a NHBC warranty is to be provided, a breather membrane must be provided to comply with their regulations. Site conditions may also dictate the use of a membrane or tapes to prevent moisture ingress through the expansion gaps during construction.



Panel Agency Limited
Established 1971

TOTAL BUILDING PRODUCT SOLUTIONS

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Storage and Fixing

Prior to fixing, remove all packaging and steel banding from the boards and store them flat, off the ground and loosely covered with waterproof sheeting so as to allow air circulation. The boards are conditioned to approximately 5% moisture content in the factory and it is therefore necessary to store the boards in the environment in which they are to be fixed, for at least 24 hours prior to fixing, to allow them to reach equilibrium moisture content.

On fixing the boards, a 2mm expansion gap should be left at all edges of the board in compliance with EN/TS 12872.

A minimum edge support of 18mm should be provided on all framing. We suggest the use of machine nailing, due to the density of the board, with a 3.0mm dia. galv or stainless steel nail with a maximum perimeter nail spacing of 150mm centres and 300mm centres on intermediate studs. Closer nail centres are permitted in accordance with EC5 and BS5268. The minimum recommended edge nailing distance is 10mm. Panelvent® DHF is suitable for sheathing timber frame panels with stud framing not less than 38mm width and at centres not exceeding 600mm.

Panelvent® DHF can resist weather exposure during construction but we do not recommend they be left fully exposed for longer than three weeks.

Panelvent® DHF when fixed to vertical wall panels or roof pitches greater than 10 degrees can withstand weather exposure for up to 6 weeks, without the application of a breather membrane.

Health and Safety

Like all other wood based products Panelvent® DHF will generate dust when it is sawn or machined.

Regulation 7 of COSHH requires that exposure to dust is either prevented or, if this is not practical, adequately controlled. PPE should be used, to suit the type of equipment being operated and dust masks should be used to prevent the inhalation of fine particles. Users should ensure that the workplace exposure limit is not exceeded.



Panelvent® DHF can be easily and neatly cut to form openings, using standard woodworking tools.

Board Properties

Board Standard	Moisture resistant glued wood Fibreboard to Z-9.1-454 and BS EN 622-5.
Certification	CE marked.
Thickness	13.0mm.
Standard Size	2400mm x 1200mm, square edged.
Density	625 (+/- 25) Kg/m ³ to BS EN323.
Weight	8.13 Kg/m ² .
Bending strength	17.0 N/mm ² to BS EN310.
M.O.E	2000 N/mm ² to BS EN310.
Tensile strength	11.7 N/mm ² to BS EN 789.
Transverse Internal bond	0.30 N/mm ² to BS EN 319.
Internal bond after boiling	0.06 N/mm ² to BS EN 622-5 AA.
Racking	3.21kn/m Category 1 to BS5268 pt 6.1.
Mean water vapour resistance	0.715 MNs/g BS EN 12086 using wet cup.
Thermal conductivity	0.10 W/mK to BS EN12667.
Extractable formaldehyde	class E1, ≤ 0.03 ppm to BS EN717-1
Thickness swelling	≤ 6.50% after 24 hours immersion to BS EN317
Fire Rating	Class D-s2,d0 to BS EN 13501-1, Class 3 spread of flame to BS476:7
Packing	50 sheets per pallet.
Colour	Fawn.

Panelvent® DHF is designed and manufactured by Egger Holzwerkstoffe Wismar GmbH & Co. KG, Wismar, Germany and distributed in the UK and Republic of Ireland by Panel Agency Ltd. It is marketed in Europe under the product name Egger DHF.



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