Specification - EWI board on a SIP or wooden/metal wall frame.

Product Ref: **Marmox Multiboard**

Product Use: External cladding and insulation of timber frame, metal frame or battened to a SIP walls to be render coated.

Manufacturer: Marmox Ltd
Address: Marmox UK Ltd, Caxton House, 101 Hopewell Drive, Chatham, Kent ME5 7NP.
01634 835290; Email: sales@marmox.co.uk; http://www.marmox.co.uk/..

Description: Extruded polystyrene covered on both sides with fibreglass mesh encased in a c.0.75mm layer of polymer modified concrete which permanently bonds the mesh to the polystyrene.

Dimensions allowed for this application:	STD.	Width: 600mm, Length: 1200mm, Thickness: 20, 30, 40, 50, 60mm
	LONG	Width: 600mm, Length: 2400mm, Thickness: 20, 30, 40, 50, 60mm
	BIG	Width: 1200mm, Length: 24000mm, Thickness: 20mm

Properties: Durable concrete substrate for render systems.
Waterproof barrier.
Low thermal conductivity (*c.0.034W/mK*) unaffected by moisture.
Does not expand or contract as temperature and humidity alters.
Fire Classification (with render) = Euroclass B

Authorities: ISO9001.

CE + UKCA: Declaration of Performance for an XPS Insulation Board
EN13164 – T1 – CS(10\Y)400 – CC(2/1/10)115 – WL(T)3

Fixing Method: **The board is screw fixed onto battens or "Top Hats" which have been nailed to either the outer face of a SIP or to timber sheeting a steel/wooden wall frame**.

A) IF BOARDS ARE ALIGNED VERTICALLY ALL BOARD EDGES are supported by the frame and are fixed with corrosion resistant screws + Marmox metal washers approximately every 300mm

- A VCL membrane should be placed against the existing masonry wall or timber sheeting and a stud frame with a minimum 50mm air gap is then constructed with vertical centres at 300mm.
- The membrane is held in place by wooden battens or steel "Top Hats" which are nailed to the sheet timber vertically at 600mm centres.
- ***The breather membrane should be between the main central insulation and the frame, it does not need putting alongside the Marmox boards.***
- A Starter Track is fitted at the base of the wall
- Horizontal noggins should be positioned to provide support to board edges every 1200mm
- Boards should ideally be aligned in a staggered (*Brick-bond*) format

Specification – EWI board on a SIP or wooden/metal wall frame.

- Boards are fixed with corrosion resistant screws + Marmox washers approximately every 300mm. The battens should provide a drained ventilated cavity behind the Marmox board.
    - STD boards are fixed to 3 vertical studs with 5 fixings per stud, **15 fixings per board**.
    - LONG boards are fixed to 3 vertical studs with 9 fixings per stud, **27 fixings per board**.
    - BIG boards are fixed to 5 vertical studs with 9 fixings per stud, **45 fixings per board**.
- A bead of MSP-360 is applied to all board edges so that it forms a waterproof seal between adjacent boards / walls / ceiling and the stud frame itself and should also be used to seal all screw fixings.

B) IF BOARDS ARE ALIGNED HORIZONTALLY ALL BOARD EDGES are supported by the frame and are fixed with corrosion resistant screws + Marmox metal washers approximately every 300mm

- A VCL membrane should be placed against the existing masonry wall or timber sheeting and a stud frame with a minimum 50mm air gap is then constructed with vertical centres at 300mm.
- The membrane is held in place by wooden battens or steel “Top Hats” which are nailed to the sheet timber vertically at 600mm centres.
- ***The breather membrane should be between the main central insulation and the frame, it does not need putting alongside the Marmox boards.***

- A Starter Track is fitted at the base of the wall
- Horizontal studs should be of 300mm apart.
- Vertical noggins should be positioned to provide support to board edges every 600mm
- Boards should be aligned in a staggered (*Brick-bond*) format
- Boards fixed with corrosion resistant screws + Marmox washers approximately every 300mm. The battens should provide a drained ventilated cavity behind the Marmox board.
    - STD boards are fixed to 3 horizontal studs with 5 screws + washers per stud, **15 fixings per board**.
    - LONG boards are fixed to 3 horizontal studs with 9 screws + washers per stud, **27 fixings per board**.
    - BIG boards are fixed to 5 horizontal studs with 9 screws + washers per stud, **45 fixings per board**.
- A bead of MSP-360 is applied to all board edges so that it forms a waterproof seal between adjacent boards / walls / ceiling and also with stud frame itself and should also be used to seal all screw fixings

Specification - EWI board directly on a SIP or wooden/metal wall frame.

RENDERING:

- The board surface is cement based with low porosity so does not need priming prior to rendering, just dampened with water Dampen the surface of the Marmox board (*Marmox boards do not need priming*)
- Any exposed (*XPS*) edges should be covered with beading prior to rendering.

For Traditional two coat render systems:

- Apply the base coat followed by of a layer reinforcement mesh (*typically 150g/m^2*) which is worked into the wet base coat.
- At least 24 hours later, apply the silicone render

NOTE:

1. Applying render to a boarded surface will result in hairline cracks at the board junctions if the render used has no flexibility after it has cured. Cement renders offer no flexibility and therefore are not ideal recommended for board systems.
Lime based renders and Thin Coat systems are better suited as they offer better flexibility.

2. Compounds containing organic solvents must not come into contact with Marmox board.

3. Temperatures in excess of 75^{O}C are not appropriate.

4. Marmox Multiboards are waterproof and consequently not breathable. Consideration must therefore be given to improving the building's ventilation to counteract the increased risk of interstitial condensation.

5. The board core is a Class E material and therefore this application is not suitable for use on the outside of buildings at heights above 18m (England + Wales) / 11mm (Scotland + Ireland). *Marmox Fireboard (which is A1 rated) should be used for those applications.*