Masonry Walls IWI Specifications *(Marmox Multiboard as plaster carrier)*

This document contains TWO specifications/applications for using Marmox Multiboard as an IWI panel on both flat and on uneven masonry walls.

IWI 1 = fixed to flat concrete, aircrete or brick wall

IWI 2 = fixed to an uneven concrete, aircrete or brick wall

Specification –IWI on flat masonry walls

Product Ref: **Marmox Multiboard**

Product Use: Internal insulation of masonry building envelope to subsequently be coated with plaster.

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 detail:	STD.	Width: 600mm, Length: 1200mm, Thickness: 4, 6, 10, 12.5, 20, 30, 40, 50, 60mm
	LONG	Width: 600mm, Length: 2400mm, Thickness: 10, 12.5, 20, 30, 40, 50, 60mm
	BIG.	Width: 1200mm, Length: 2400mm, Thickness: 12.5, 20mm

Properties: Low thermal conductivity (*c.0.034W/mK*) unaffected by moisture.
Does not expand or contract as temperature and humidity alters.

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 1: **The Marmox board is fixed to the concrete or masonry surface with tile adhesive.** Adhesive only fixing is not suitable for walls made of aircrete/ AAC / thermal blocks or any surface coated or covered with paint or plaster.

Fixing Method 2: **The Marmox board is fixed to the masonry wall with mechanical fixings.**

Method 1 - FIXING WITH TILE ADHESIVE ONLY (*not recommended on aircrete block walls*)

- Ensure the wall is flat enough for full bed adhesion, i.e. <2mm over a 1m span.
- The masonry should be primed in accordance with the adhesive manufacturer's advice.
- Boards can be aligned vertically or horizontally ideally in a staggered (*Brick-bond*) format.

Reinforcing with screws and washers is not necessary.

- Marmox Multiboard is fixed onto a continuous bed (*3-5mm thick*) of cement-based tile adhesive.
- The boards are sealed to each other by running a bead of MSP-360 along each board edge during installation.
- A 5mm gap is left around the perimeter which is filled with Marmox MSP-360

Method 2, fixing with screws and washers is detailed on the next page….

Specification –IWI on flat masonry walls

Method 2 – USING MECHANICAL FIXINGS

If it is uneven, the dotting and dabbing plus mechanical reinforcement method should be used instead.

- Boards can be aligned vertically or horizontally ideally in a staggered (*Brick-bond*) format.
- If fixing to aircrete/ AAC / thermal blocks, suitable 'thermal block' mechanical fixings and washers should be used.
- Drill holes should be made in the boards to mark where the adhesive dabs should be placed.

2a) 10mm or thicker: Aligned Vertically or Horizontally with screws and Marmox washers

- Boards are aligned ideally in a staggered (*Brick-bond*) format.
- Marmox Multiboard is fixed onto the masonry with screws and washers ensuring all board edges are supported.

  For STD board – three along each long edge, three down the middle = **9 per board**

  For LONG board – five along each long edge, five down the middle = **15 per board**

  For BIG board – five along each long edge and two more rows of five down the middle = **25 per board**

2b) 4mm and 6mm boards: Aligned Vertically or Horizontally with screws and Marmox washers

- Boards are aligned ideally in a staggered (*Brick-bond*) format.
- Marmox Multiboard is fixed onto the masonry with screws and washers ensuring all board edges are supported.

  For STD board – five along each long edge, five down the middle = **15 per board**

- Fix the boards to the wall with the adhesive and level them. After curing reinforce with screws and washers of Marmox fixing dowels.
- The boards are sealed to each other by running a bead of MSP-360 along each board edge during installation.
- A 5mm gap is left around the perimeter which is filled with Marmox MSP-360

Note: 1) Marmox MSP-360 is not like silicone – it can be plastered over without affecting the bond.

2) No priming of the Marmox board is necessary, the surface is already suitable to receive plaster.

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Plastering: Depending on the required impact resistance required, a single skim or a double application of paster can be put onto the boards.

To achieve a resistance to impact commensurate with 'Medium Duty performance' of plasterboard (*as defined by BS5234*)

- Scrim tape (*Marmox reinforcing tape*) is applied over all joints
- Dampen the surface of the Marmox board.
- Apply two coats of plaster – the first onto the Marmox board surface approximately 2mm thick and a further 1mm approximately one hour later.
- *(To achieve heavy duty performance, an additional layer of fibreglass scrim mesh should be added onto the first coating whilst still wet.)*
- Any exposed (*foam*) edges should be covered with scrim tape before plastering.

<u>For areas where surface impact is will be minimal or light</u> (*such as above head height*)

- Scrim tape (*Marmox reinforcing tape*) is applied over all joints.
- Any exposed (*foam*) edges should be covered with scrim tape
- Dampen the surface of the Marmox board.
- Apply a single coat of plaster at least 2mm thick.

Limitations: 1) Compounds containing organic solvents must not come into contact with Marmox board.
2) Temperatures in excess of 75^{O}C are not appropriate.

Specification –IWI on uneven masonry walls

Product Ref: **Marmox Multiboard**

Product Use: Internal insulation of an uneven internal wall to subsequently be coated with plaster.

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 detail:	STD.	Width: 600mm, Length: 1200mm, Thickness: 12.5, 20, 30, 40, 50, 60mm
	LONG	Width: 600mm, Length: 2400mm, Thickness: 12.5, 20, 30, 40, 50, 60mm
	BIG.	Width: 1200mm, Length: 2400mm, Thickness: 12.5, 20mm

Properties: Low thermal conductivity (*c.0.034W/mK*) unaffected by moisture.
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Authorities: ISO9001.

CE + UKCA: Declaration of Performance for an XPS Insulation Board
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Fixing Method: **The Marmox board is fixed to the masonry wall with tile adhesive and dowel fixings.**
Marmox dowel fixings are not suitable for use in aircrete / AAC / thermal blocks. Alternative mechanical fixings are shown on the next page

a) Boards *(minimum thickness 12.5mm)* **can be aligned vertically or horizontally** in a staggered (*Brick-bond*) format.

- 10mm diameter holes for the fixing dowels are made in the boards as detailed below which will be where the dabs of tile adhesive are subsequently placed: -

  For STD board – **SIX** dabs of tile adhesive (*three along each long edge*)

  For LONG board – **TEN** dabs of tile adhesive (*five along each long edge*)

  For BIG board – **FIFTEEN** dabs of tile adhesive (*three rows of 5*)

Boards are fixed to the wall, initially with the dabs of tile adhesive.

- After curing, a 10mm hole is drilled into the masonry through the holes in the Marmox boards.
- Marmox Dowel fixings are then fixed through the holes and the dabs into the wall which are then secured with the fixing pin.
- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive.

Specification –IWI on uneven masonry walls

- If a completely waterproof layer is required (*if essential to keep moisture out of the masonry*), all board joints are covered with Marmox self-adhesive waterproof tape instead of reinforcing tape (*scrim tape*) and a small square of self-adhesive waterproof tape should be cut out and placed over the head of the fixing
- The boards are now ready to tile, no priming is required.

Alternative Mechanical Fixings

If fixing to a wall made of aircrete / AAC / thermal blocks, special thermal fixings should be used. This will require holes in the walls to be drilled before fitting the boards to enable the wall plugs to be inserted.

Moisture resistant screws and Marmox washers can be used instead of dowel fixings. This will require holes in the walls to be drilled before fitting the boards to enable the wall plugs to be inserted.

Note:

1. A 5mm movement gap should be left between the Multiboard and any restraining surface which should subsequently be filled with Marmox MSP-360.

2. Compounds containing organic solvents (*including organic based tile sealants*) must not come into contact with Marmox board.

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

4. The board can compress if point load pressure is applied. A supported square of plywood (*e.g. 5cm x 5cm*) should be fixed into position with tile adhesive replacing the Marmox AND any void behind the board in the areas where there may be point loading from heavy shelving, hanging lavatories etc.