Masonry Walls EWI Specifications *(Marmox Multiboard as render carrier)*

This document contains THREE specifications/applications for using Marmox Multiboard as an EWI panel on masonry walls. The variations 1, 2 and 3 relate to differences in wall type.

EWI 1 = fixed to flat concrete or brick (*not aircrete/thermal block*) wall

EWI 2 = fixed to thermal blocks

EWI 3 = fixed to uneven or previously rendered concrete or brick wall

Specification: EWI board fixed to masonry (*not aircrete*) Walls

Product Ref: **Marmox Multiboard**

Product Use: External insulation cladding and render carrier board for flat external masonry walls.

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: Width = 600mm, Length = 1200mm or 2400mm, Thickness = 10, 12.5, 20, 30, 40, 50, 60mm

Properties: 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:	**Marmox Multiboard is fixed to a masonry, brick or concrete wall with a continuous bed of tile adhesive.**

Significant voids behind the boards must be filled. A layer of cement rich render (*e.g. 3:1 sand: cement*) should be applied to the wall to create a reasonably flat substrate for the Marmox boards.

This method is only suitable to FLAT, bare brick, bare concrete block or bare concrete walls – method EWI 2 should be used for walls which are uneven or already coated.

- The masonry should be primed in accordance with the adhesive manufacturer's advice.
- For a full wall, fit the Starter Track to the base of the wall at 300mm centres.
- Starting on the starter track, boards can be aligned vertically or horizontally ideally in a staggered (*Brick-bond*) format.
- Marmox Multiboard is fixed onto a continuous bed (*3-5mm thick*) of cement-based tile adhesive.
- Boards are lightly butted to each other except around openings where a 5mm gap is left – filled with MSP-360.

Specification: EWI board fixed to masonry (*not aircrete*) Walls

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/top coat.

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.*

Specification: EWI board fixed to Aircrete Blocks

Product Ref: **Marmox Multiboard**

Product Use: External insulation cladding and render carrier board for on external walls made from aircrete, AAC type block.

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: Width = 600mm, Length = 1200mm or 2400mm, Thickness = 10, 12.5, 20, 30, 40, 50, 60mm

Properties: 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:	**Marmox Multiboard is fixed directly to an aircrete block wall with thermal fixings and washers only**

Significant voids behind the boards must be filled. A layer of cement rich render (*e.g. 3:1 sand: cement*) should be applied to the wall to create a reasonably flat substrate (*<3mm over a 1m*) for the Marmox boards.

- The masonry should be primed in accordance with the adhesive manufacturer's advice.
- For a full wall, fit the Starter Track to the base of the wall at 300mm centres.

Starting on the starter track, boards can be aligned vertically or horizontally ideally in a staggered (*Brick-bond*) format.

<u>If the boards are aligned vertically,</u>

- Marmox Multiboard - 600 x 1200mm is fixed to the wall with three vertical rows c.300mm apart, of four thermal block fixings + washers (***12 per STD board***)
- Marmox Multiboard - 600 x 2400mm is fixed to the wall with three vertical rows c.300mm apart, of seven thermal block fixings + washers (***21 per LONG board***)
- Marmox Multiboard - 1200 x 2400mm is fixed to the wall with five vertical rows c.600mm apart, of seven thermal block fixings + washers (***35 per BIG board***)

Specification: EWI board fixed to external aircrete Blocks

If the boards are aligned vertically,

- Marmox Multiboard - 600 x 1200mm is fixed to the wall with five vertical rows c.300mm apart, of three thermal block fixings + washers (***15 per STD board***)
- Marmox Multiboard - 600 x 2400mm is fixed to the wall with nine vertical rows c.300mm apart, of three thermal block fixings + washers (***27 per LONG board***)
- Marmox Multiboard - 1200 x 2400mm is fixed to the wall with nine vertical rows c.300mm apart, of four thermal block fixings + washers (***36 per BIG board***)

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/top coat.

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.*

Specification: EWI board fixed to rendered, painted or uneven Walls

Product Ref: **Marmox Multiboard**

Product Use: External insulation cladding and render carrier board for external masonry walls which are not perfectly flat or may be already coated with render or paint.

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: Width = 600mm, Length = 1200mm or 2400mm, Thickness = 20, 30, 40, 50, 60mm
(*note, minimum thickness for this method, 20mm*)

Properties: 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:	**Marmox Multiboard is fixed to the wall with adhesive dabs and Marmox fixing dowels** (*or screws and washers*)**.**

- *The masonry may require priming depending on the adhesive – check with manufacturer.*
- For a full wall, fit the Starter Track to the base of the wall at 300mm centres.
- Starting on the Starter Track, boards are aligned vertically or horizontally ideally in a staggered (*Brick-bond*) format.
    - STD BOARDS (600 x 1200mm) are fixed to the wall with adhesive applied around the board edges and three large dabs in the middle of the board to ensure a flat surface.
    - LONG BOARDS (600 x 2400mm) are fixed to the wall with adhesive applied around the board edges and four large dabs in the middle of the board to ensure a flat surface.
    - BIG BOARDS (1200 x 2400mm) are fixed to the wall with adhesive applied around the board edges and eight large dabs in the middle of the board to ensure a flat surface.
- Boards are lightly butted to each other except around openings where a 5mm gap is left.
- At least 24 hours after fitting the boards they are mechanically fixed into the masonry using Marmox fixing dowels:

Specification: EWI board fixed to rendered, painted or uneven Walls

If aligned vertically…

- Marmox Multiboard is fixed onto the masonry with:

  For STD board – 3 vertical rows of 3 fixings = **9 per board**

  For LONG board – 3 vertical rows of 5 fixings = **15 per board**

  For BIG board – 5 vertical rows of 5 fixings = **25 per board**

If aligned horizontally…

- Marmox Multiboard is fixed onto the masonry with:

  For STD board – 4 vertical rows of 3 fixings = **12 per board**

  For LONG board – 7 vertical rows of 3 fixings = **21 per board**

  For BIG board – 7 vertical rows of 5 fixings = **35 per board**

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/top coat.

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.*