

## Specification – Internal Wall Insulation for 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.  
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**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.

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|--|------|---|
| <b>Dimensions allowed for this detail:</b> | 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 an uncoated concrete or masonry surface with tile adhesive.**  
Adhesive only fixing is not suitable for any surface coated or covered with paint or plaster.  
Adhesive only fixing is not sufficient for wall made of aircrete/ AAC / thermal blocks – these walls will require additional mechanical fixing (*see method 2*)

**Fixing Method 2:** **The Marmox board is fixed to the masonry wall with mechanical fixings** when that masonry surface is unable to take a tile adhesive.

### **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. *If the wall is uneven or irregular, apply a sand/cement render over it to create a flat surface.*
- The masonry / concrete surface 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 except on aircrete walls.*
- Marmox Multiboard is fixed onto a continuous bed (*3-5mm thick*) of cement-based tile adhesive. *Do not use the dot and dab method as that will create unwanted voids behind the board.*
- 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

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### Method 2 – USING MECHANICAL FIXINGS

For fixing to aircrete block, painted and plastered walls or powdery masonry surfaces.

- Ensure the wall is flat enough for full bed adhesion, i.e. <2mm over a 1m span. *If the wall is uneven or irregular, apply a simple sand/cement render over it to create a flat surface.*
- 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.

#### **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 screws and washers, Marmox fixing dowels or thermal block fixings.
- The boards **MUST BE** 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

### **Notes:**

- 1) A Vapour Control Membrane is NOT needed when using a Marmox Multiboard. Provided they are sealed together, they perform the same function.
- 2) Marmox MSP-360 is not like silicone – it can be plastered over without affecting the bond.
- 3) No priming of the Marmox board is necessary, the surface is already suitable to receive plaster.
- 4) Voids and air gaps between the Marmox board and the internal wall surface should be avoided as these can result in interstitial condensation and black mould growth in the void.

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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.

**For areas where surface impact is will be minimal or light** (*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.