

Specification: Tiling an internal masonry wall

This document contains three related specifications / applications for using Marmox Multiboard as a tile backer board on internal masonry walls.

The status of the wall (*its flatness, whether it is plastered etc.*) will determine which specification is followed.

- Int Wall 1 = fixing Marmox board to a flat masonry wall
- Int Wall 2 = fixing Marmox board to uneven masonry wall
- Int Wall 4 = fixing Marmox board to a plastered wall

Specification: Tile backer board on masonry or concrete internal Walls

Product Ref: Marmox Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on flat and level internal 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 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: Decoupling between the tiled surface and the sub-structure, thermal insulation unaffected by moisture, Waterproofing, Enhanced tile adhesion.

Authorities: BBA Certified (09/4687), ISO9001

CE+UK Marking: EN13164 – T1 – CS(10\Y)400 – CC(2/1/10)115 – WL(T)3

Fixing Method 1)	The Marmox board is fixed to the masonry wall with tile adhesive only. Adhesive only fixing is <u>not</u> 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. <i>Note: 4mm + 6mm thick board require more fixings than 10mm and thicker boards</i>
-------------------------	---

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 it is uneven, the dotting and dabbing plus mechanical reinforcement method should be used instead.*
- 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.
- Marmox Multiboard is fixed onto a continuous bed (3-5mm thick) of cement-based tile adhesive, typically the same adhesive used for subsequently fixing the tiles with.
- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive.
- If a completely waterproof layer is required (*if it is 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*)
- The boards are now ready to tile.

Fixing with screws and washers is detailed on the next page....

Specification: Tile backer board on masonry or concrete internal Walls

Method 2 - FIXING WITH MECHANICAL FIXINGS ONLY

- 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**
- If a completely waterproof layer is required a small square of self-adhesive waterproof tape should be cut out and placed over the head of the fixing to waterproof it.
- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive.
- 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*)
- The boards are now ready to tile.

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°C are not appropriate.

Specification: Tile backer board on uneven masonry internal Walls

Product Ref: Marmox Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on internal masonry walls where fixing with a continuous bed of tile adhesive is not possible.

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: Decoupling between the tiled surface and the sub-structure, thermal Insulation unaffected by moisture, Waterproofing, Enhanced tile adhesion.

Authorities: BBA Certified (09/4687), ISO9001

CE+UK Marking: EN13164 – T1 – CS(10\Y)400 – CC(2/1/10)115 – WL(T)3

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.
- 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.

Specification: Tile backer board on uneven masonry internal Walls

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. The boards are now ready to tile, no priming is required
2. A 5mm movement gap should be left between the Multiboard and any restraining surface which should subsequently be filled with Marmox MSP-360.
3. Compounds containing organic solvents (*including organic based tile sealants*) must not come into contact with Marmox board.
4. Temperatures in excess of 75°C are not appropriate.
5. 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.

Specification: Tile backer board on plastered or painted Walls

Product Ref: Marmox Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling masonry walls which already have a layer of plaster 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 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: Decoupling between the tiled surface and the sub-structure, thermal Insulation unaffected by moisture, waterproofing, and enhanced tile adhesion.

Authorities: ISO9001

CE+UK Marking: EN13164 – T1 – CS(10\Y)400 – CC(2/1/10)115 – WL(T)3

Fixing Method: The Marmox board is fixed directly to the plastered, painted or coated wall with screws and washers. If the wall is made of AAC / aircrete / thermal blocks, thermal block fixings should be used.

- Remove any loose plaster or and if there are any significant voids, level these off with concrete/Polyfilla etc.
- If fixing to aircrete/ AAC / thermal blocks, suitable 'thermal block' mechanical fixings and washers should be used.

a) 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**

Specification: Tile backer board on flat plastered Walls

- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive.
- 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 to waterproof it.
- The boards are now ready to tile, no priming is required.

- Note:**
1. Using a frame to fix the boards above a plastered wall is not ideal as that could encourage moisture to concentrate within the plaster which could swell and weaken over time. It is preferable, to remove the plaster so that the boards can be bonded directly to the masonry (*Specification Int Wall 1*) and provide a stronger, more durable bond.
 2. If the plastered wall is uneven, consideration should be given to removing the plaster and fitting the boards directly on the masonry. Alternatively, if the plastered wall is too uneven for direct bonding, Marmox boards can be fixed to timber battens (*Specification Int Wall 5*) preferably with the plaster removed.
 3. A 5mm movement gap should be left between the Multiboard and any restraining surface which should subsequently be filled with Marmox MSP-360.
 4. Compounds containing organic solvents must not come into contact with Marmox board.
 5. Temperatures in excess of 75°C are not appropriate.