

Specification: Tiling Curved Walls with Curved Multiboard

This document contains three related specifications / applications for using Marmox Curved Multiboard as a tile backer board on or to create curved walls.

These specifications are applicable to internal and external walls.

- CurvedBoard 1 = tiling an already curved concrete or masonry wall.
- CurvedBoard 2 = tiling a curved steel or timber frame
- CurvedBoard 3 = tiling a curved steel or timber frame with greater impact resistance.

Specification: Curved Tile backer on Masonry Walls

Product Ref: Marmox Curved Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on internal and external, concave and convex curved masonry/concrete/stone 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: Curved Multiboard is a flexible board comprising a layer of extruded polystyrene covered on both sides with a 1mm thick coating of flexible fibre reinforced polymer concrete. One face has 2mm wide slices every 20mm running across the 600mm width which penetrate 75% into the board so when squeezed together it can be curved in on itself to create a radius as small as 200mm. The un-serrated face is designed to be tiled/plastered/rendered.

Dimensions: Available in one size only - Width: 600mm, Length: 1200mm, Thickness: 20mm
Curvature: the cuts are only across the 600mm width

Properties: Decoupling between the tiled surface and the sub-structure, thermal Insulation unaffected by moisture, waterproofing, and enhanced tile adhesion.

Authorities: BS EN 5385-1: Code of practice for the design and installation of internal floor tiling. ISO9001

CE/UKCA: 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 only. The adhesive is applied to the serrated side.

SUBSTRATE LAYER

- The surface of the wall should be even and not be coated or covered with any surface covering
- If the brickwork, concrete or masonry surface is too uneven for the board to be fixed with a continuous bed of adhesive, apply a sand/cement render to create a reasonably smooth and even surface.

MARMOX BOARD LAYER

- 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.
- The cut surface of the Marmox Curved Multiboard is fixed onto a continuous bed (*3-5mm thick*) of cement-based 'flexible' tile adhesive, *the same adhesive used for subsequently fixing the tiles with.*
- A 5mm expansion gap is left between the boards and the wall and filled with Marmox MSP-360.
- All connections to building features e.g. window frames are sealed with Marmox MSP-360.

Specification: Curved Tile backer on Masonry Walls

TILING

- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive.
- The same cement-base tile adhesive used to fix the Marmox board to the substrate is suitable.

Limitations:

- Compounds containing organic solvents (*including organic based sealants*) should not come into contact with Marmox board.
- Temperatures in excess of 75°C are not appropriate.

Specification: Curved Tile backer onto timber / steel frame

Product Ref: Marmox Curved Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on internal and external, concave and convex curved frame walls made of timber or steel.

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: Curved Multiboard is a flexible board comprising a layer of extruded polystyrene covered on both sides with a 1mm thick coating of flexible fibre reinforced polymer concrete. One face has 2mm wide slices every 20mm running across the 600mm width which penetrate 75% into the board so when squeezed together it can be curved in on itself to create a radius as small as 200mm. The un-serrated face is designed to be tiled/plastered/rendered.

Dimensions: Available in one size only - Width: 600mm, Length: 1200mm, Thickness: 20mm
Curvature: the cuts are only across the 600mm width

Properties: Decoupling between the tiled surface and the sub-structure, thermal insulation unaffected by moisture, waterproofing, and enhanced tile adhesion.

Authorities: BS EN 5385-1: Code of practice for the design and installation of internal floor tiling. ISO9001

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

Fixing Method: The Marmox Curved board is fixed directly to the frame with screws and washers every 300mm with the serrated side on the inside (*in contact with the frame*).

BOARDS LAID VERTICALLY (“PORTRAIT” RATHER THAN “LANDSCAPE”)

- Vertical studs supporting the long edges should be 300mm apart so that when the Marmox boards are subsequently fitted, both edges and the middle of these boards will be supported
- Boards should be aligned in a staggered (*Brick-bond*) format when feasible.
- They are fixed with corrosion resistant screws + Marmox washers every c.300mm (*i.e. fixed to 3 vertical studs with 5 screws + washers per stud, 15 fixings per board.*)

BOARDS LAID HORIZONTALLY (“LANDSCAPE” RATHER THAN “PORTRAIT”)

- Vertical studs supporting the short edges should be 300mm apart so that when the Marmox boards are subsequently fitted, both short edges will be supported.
- Boards should be aligned in a staggered (*Brick-bond*) format when feasible.
- They are fixed with corrosion resistant screws + Marmox washers every c.300mm (*i.e. fixed to 5 horizontal studs with 3 screws + washers per stud, 15 fixings per board.*)

Specification: Curved Tile backer onto timber / steel frame

MARMOX BOARD LAYER FOR BOTH ALIGNMENTS

- A generous bead of MSP-360 is applied to all board edges as the boards are being installed so that it adheres the edge of the board to the next board and also to the frame behind.
- A 5mm expansion gap is left between the boards and the wall which is filled with Marmox MSP-360.
- All screw-fixings are sealed with Marmox MSP-360.
- All connections to building features e.g. window frames are sealed with Marmox MSP-360.

TILING

- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive.
- A cement-based 'flexible' tile adhesive is suitable.
- **For large format tiles or for external use**, it is recommended that the frame is pre-clad with an additional layer such as bendable GRG panels to provide greater stability (*see CurvedBoard 3 Spec*)

Limitations:

- The serrated side of the Marmox Curved board must not be left exposed.
- Compounds containing organic solvents (*including organic based sealants*) should not come into contact with Marmox board.
- Temperatures in excess of 75°C are not appropriate.

Specification: Curved Tile backer board on pre-clad stud Walls

Product Ref: Marmox Curved Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on internal and external, concave and convex curved walls on metal stud walls which have a layer of either pre-curved glass reinforced gypsum (GRG) panels or moisture resistant wooden panels fixed to them.

Manufacturer: Marmox Ltd

Address: Marmox UK Ltd, Caxton House, 101 Hopewell Drive, Chatham, Kent ME5 7NP.
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Description: Curved Multiboard is a flexible board comprising a layer of extruded polystyrene covered on both sides with a 1mm thick coating of flexible fibre reinforced polymer concrete. One face has 2mm wide slices every 20mm running across the 600mm width which penetrate 75% into the board so when squeezed together it can be curved in on itself to create a radius as small as 200mm. The un-serrated face is designed to be tiled/plastered/rendered.

Dimensions: Available in one size only - Width: 600mm, Length: 1200mm, Thickness: 20mm
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Properties: Decoupling between the tiled surface and the sub-structure, thermal Insulation unaffected by moisture, waterproofing, and enhanced tile adhesion.

Authorities: BS EN 5385-1: Code of practice for the design and installation of internal floor tiling. ISO9001

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

Fixing Method: The Marmox Curved board is fixed onto an intermediate layer of GRG or timber etc (*timber is not suitable if used externally or in areas of high humidity*) with screws and washers secured through the Marmox layer into the frame behind.

SUB LAYER AND STUDWORK

- Studs should be 300mm apart so that when the Marmox boards are subsequently fitted, all the edges of these boards will be supported - additional horizontal noggins may therefore be required.
- Suitable intermediate stabilising layers are glass reinforced gypsum (GRG) panels, Tricoya sheathing etc. One single layer of 6mm panels would be suitable for most applications.
- When used externally or above first floor height internally, two layers of 6mm panels may be considered.
- The intermediate boarding is fixed to the stud frame in accordance with the manufacturer's recommendations and must not show any deflection.

Specification: Curved Tile backer board on pre-clad stud Walls

MARMOX BOARD LAYER

- Use corrosion resistant screws approximately 20mm longer than the combined thickness of the Marmox board and the cladding.
- Screws should be placed about 10mm from the edge of the board approximately every 300mm along each stud (*i.e. five fixings along each length, 15 per board*).
- A bead of MSP-360 is applied to all board edges as the boards are being installed so that it adheres the edge of the board to the next board and also to the cladding behind.
- A 5mm expansion gap is left between the boards and the wall which is filled with Marmox MSP-360.
- All screw-fixings are sealed with Marmox MSP-360.
- All connections to building features e.g. window frames are sealed with Marmox MSP-360.

TILING

- Scrim tape (reinforcing tape) should be placed over all board joints prior to tiling with adhesive.
- A cement-based 'flexible' tile adhesive is suitable.

CLADDING WITH BRICK SLIPS

- *If the 'brick slips' have an area greater than 0.1m² and are used 3m above the ground floor, they will require additional mechanical fixing. The clips must be secured either into the stud frame behind the Marmox board or into the intermediate layer between the frame and the Marmox board because the boards, having a polystyrene core do not provide any grip for mechanical fixings.*

Limitations:

- Compounds containing organic solvents (*including organic based sealants*) should not come into contact with Marmox board.
- Temperatures in excess of 75°C are not appropriate.