

Specification: Tiling an internal stud wall

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

Specification Internal Wall 5 (*fixing direct to the frame*) is in two parts depending on the thickness of the Marmox board. 300mm centres should be used with 10 and 12mm board, 600mm centres can be used with boards at least 20mm thick.

Int Wall 6 is the specification for incorporating an intermediate layer between the studs and the Marmox board.

- Int Wall 5 (*300mm centres*) = fixing Marmox board direct to the frame
- Int Wall 5 (*600mm centres*) = fixing Marmox board direct to the frame
- Int Wall 6 = fixing Marmox board to a panel that is already fixed to a frame

Specification for use as tile backer board on stud wall frame with 300mm centres

Product Ref: Marmox Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on an internal stud wall with 300mm centres.

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: 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

THIS SPECIFICATION IS FOR USE WHEN THE CENTRES ARE 300mm IN WHICH CASE ANY THICKNESS 10mm OR GREATER CAN BE USED. 20mm BOARD CAN BE USED WITH 600mm CENTRES – SEE *Int Wall 5 (600ctr)*

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 directly to the stud frame with screws and washers approximately every 300mm. All board edges need supporting.

A) BOARDS ARE ALIGNED VERTICALLY

- Vertical studs should be 300mm apart.
- Horizontal noggins should be positioned to provide support to board edges:
 - 1200mm for STD boards
 - 2400 for LONG and BIG boards
- Boards should be aligned in a staggered (*Brick-bond*) format
- Boards are fixed with corrosion resistant screws + Marmox washers approximately every 300mm
 - STD** boards are fixed to 3 vertical studs with 5 screws + washers per stud, **15 fixings per board**.
 - LONG** boards are fixed to 3 vertical studs with 9 screws + washers per stud, **27 fixings per board**.
 - BIG** boards are fixed to 5 vertical studs with 9 screws + washers per stud, **45 fixings per board**.
- A generous bead of MSP-360 must be applied to all the board edges sufficient to seal the boards together and additionally to adhere to the ceiling and stud frame.
- All screw-fixings are sealed with Marmox MSP-360.

Specification for use as tile backer board on stud wall frame with 300mm centres

B) BOARDS ARE ALIGNED HORIZONTALLY

- Horizontal studs should be of 300mm apart.
- Vertical noggin should be positioned to provide support to board short edges:
 - Using STD, LONG and BIG boards, vertical studs should be 600mm apart.
 - Boards should be aligned in a staggered (*Brick-bond*) format
- Boards fixed with corrosion resistant screws + Marmox washers approximately every 300mm
 - STD boards are fixed to 3 horizontal studs with 5 screws + washers per stud, **15 fixings per board**.
 - LONG boards are fixed to 3 horizontal studs with 9 screws + washers per stud, **27 fixings per board**.
 - BIG boards are fixed to 5 horizontal studs with 9 screws + washers per stud, **45 fixings per board**.
- A generous bead of MSP-360 must be applied to all the board edges sufficient to seal the boards together and additionally to adhere to the ceiling and stud frame.
- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive except in potentially very wet areas where Marmox self-adhesive tape is used instead.
- The boards are now ready to tile, no priming is required.

Note:

- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive except in potentially very wet areas where Marmox self-adhesive tape is used instead.
- A 5mm movement gap should be left between the Multiboard and any restraining surface which should subsequently be filled with Marmox MSP-360.
- The substrate should be constructed in accordance with BS5385 inasmuch that prior to the installation of Multiboard. The frame should be constructed so that all board edges are supported and of material that will not be subject to movement or warping resulting from changes in moisture content.
- 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 each fixing to waterproof it.
- Compounds containing organic solvents (*including organic based tile sealants*) must not come into contact with Marmox board.
- Temperatures in excess of 75°C are not appropriate.

Specification for use as tile backer board on stud wall frame with 600mm centres

Product Ref: Marmox Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on an internal stud wall with 600mm centres.

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: 20, 30, 40, 50, 60mm LONG. Width: 600mm, Length: 2400mm, Thickness: 20, 30, 40, 50, 60mm BIG. Width: 1200mm, Length: 2400mm, Thickness: 20mm
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THIS SPECIFICATION IS FOR USE WHEN THE CENTRES ARE 600mm IN WHICH CASE ANY THICKNESS 20mm OR GREATER CAN BE USED. TO USE 10 AND 12.5mm BOARDS, CENTRES MUST BE 300mm – SEE Int Wall 5 (300ctr)

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 directly to the stud frame with screws and washers approximately every 600mm. All board edges need supporting.

A) BOARDS ARE ALIGNED VERTICALLY

- Vertical studs are 600mm apart.
- Horizontal noggins should be positioned to provide support to board edges:
1200mm for STD, LONG and BIG boards
- Boards should be aligned in a staggered (Brick-bond) format
- Boards are fixed with corrosion resistant screws + Marmox washers approximately every 300mm
 - STD boards are fixed to both vertical studs with 5 screws + washers per stud, **10 fixings per board**.
 - LONG boards are fixed to both vertical studs with 9 screws + washers per stud, **18 fixings per board**.
 - BIG boards are fixed to 3 vertical studs with 9 screws + washers per stud, **27 fixings per board**.
- A generous bead of MSP-360 must be applied to all the board edges sufficient to seal the boards together and additionally to adhere to the ceiling and stud frame.
- All screw-fixings are sealed with Marmox MSP-360.
- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive except in potentially very wet areas where Marmox self-adhesive tape is used instead.
- The boards are now ready to tile, no priming is required.

Specification for use as tile backer board on stud wall frame with 600mm centres

B) BOARDS ARE ALIGNED HORIZONTALLY

- Horizontal studs are 600mm apart.
- Vertical noggin should be positioned to provide support to board short edges:

Using STD, LONG and BIG boards, vertical studs should be 600mm apart.
Boards should be aligned in a staggered (*Brick-bond*) format
- Boards are aligned to the horizontal studs so that both of their long edges are supported by the frame. They are fixed with corrosion resistant screws + Marmox washers approximately every 300mm

STD boards are fixed to both horizontal studs with 5 screws + washers per stud, **10 fixings per board**.

LONG boards are fixed to both horizontal studs with 9 screws + washers per stud, **18 fixings per board**.

BIG boards are fixed to 3 horizontal studs with 9 screws + washers per stud, **27 fixings per board**.
- A generous bead of MSP-360 must be applied to all the board edges sufficient to seal the boards together and additionally to adhere to the ceiling and stud frame.
- Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive except in potentially very wet areas where Marmox self-adhesive tape is used instead.
- The boards are now ready to tile, no priming is required.

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. The substrate should be constructed in accordance with BS5385 inasmuch that prior to the installation of Multiboard. The frame should be constructed so that all board edges are supported and of material that will not be subject to movement or warping resulting from changes in moisture content.
4. 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 each fixing to waterproof it.
5. Compounds containing organic solvents (*including organic based tile sealants*) must not come into contact with Marmox board.
6. Temperatures in excess of 75°C are not appropriate.

Specification: Tile backer board on stud wall plus sheet of timber

Product Ref: Marmox Multiboard

Product Use: Intermediate substrate to ceramic and stone tiling on timber or metal stud walls which already has a layer of plywood or OSB fixed to it.

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 with 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
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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: 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 onto an intermediate layer of plywood, OSB with screws and washers which are secured through this intermediate layer into the frame behind and sealed with MSP-360.

The purpose of including an additional board beneath the Marmox board is twofold: -

- It allows for thinner sheets of Marmox board to be used which would otherwise be too flexible.
- If using 18mm plywood, it provides a secure substrate into which fittings and features such as cupboards and shelving can subsequently be put on these walls.

CONSTRUCTING THE FRAME FOR HORIZONTALLY ALIGNED (LANDSCAPE FORMAT) BOARDS

- Horizontal studs behind the plywood etc are 600mm apart so that when the Marmox boards are subsequently fitted, the long edges of these boards will be in front of them (*with the plywood etc. between*).
- Vertical noggins behind the plywood etc should be positioned approximately every 600mm. The frame should be in the form of squares 600mm x 600mm.

CONSTRUCTING THE FRAME FOR VERTICALLY ALIGNED (PORTRAIT FORMAT) BOARDS

- Vertical studs behind the plywood etc are 600mm apart so that when the Marmox boards are subsequently fitted, the long edges of these boards will be in front of them (*with the plywood etc. between*). Horizontal noggins behind the plywood etc should be positioned approximately every 1200mm. The frame should be in the form of rectangles 1200mm high x 600mm wide.

Specification: Tile backer board on stud wall plus sheet of timber

- A 5mm movement gap should be left between the Multiboard and any restraining surface which should subsequently be filled with Marmox MSP-360.
- Marmox Boards are fixed through the intermediate layer into the studwork behind as set out below.
- A generous bead of MSP-360 must be applied to all board edges as they are being installed so that it adheres the edge of the board to the next board and also to the cladding behind (*and also to the ceiling and floor.*)

a) Using 10mm or thicker boards

- Boards are aligned ideally in a staggered (*Brick-bond*) format.
- Marmox Multiboard is fixed through the plywood (etc.) into the metal or wooden frame behind 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**

b) Using 4mm and 6mm boards

- More fixings are required with the thinner boards.
- Marmox Multiboard is fixed through the plywood (etc.) into the metal or wooden frame behind 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**

Notes: 1. Scrim tape (*reinforcing tape*) should be placed over all board joints prior to tiling with adhesive except in potentially very wet areas where Marmox self-adhesive tape is used instead.

2. All connections to building features e.g. window frames, are sealed with Marmox MSP-360.

3. The substrate should be constructed in accordance with BS5385 inasmuch that prior to the installation of Multiboard. The frame should be constructed so that all board edges are supported and of material that will not be subject to movement or warping resulting from changes in moisture content.

3. 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.

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

5. Temperatures in excess of 75°C are not appropriate.