

SIP, timber and metal frame wall IWI Specifications (*Multiboard as plaster carrier*)

This document contains TWO specifications/applications for using Marmox Multiboard as an IWI panel on both flat and on uneven masonry walls.

IWI 3 = fixed to an intermediate layer of sheet material that is fixed to a frame

IWI 4 = fixed directly to the studs – there are two variations of IWI 4 depending on the thickness of board used.

Specification – IWI on a timber-clad frame wall or SIP

Product Ref: Marmox Multiboard

Product Use: To improve the insulation of a SIP or a timber clad steel or wooden frame wall which will be coated with plaster.

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/..](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: 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: Marmox Multiboard is fixed onto a layer of timber sheeting that is fixed to a frame or to a SIPs panel with tile adhesive.

- Boards can be aligned vertically or horizontally ideally in a staggered (*Brick-bond*) format.
- Marmox Multiboard is fixed directly onto stable plywood (*min thickness 12mm or SIPs panel*) with a continuous bed of cement-based tile adhesive (*c.3-4mm thick*).
- 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

- Notes:**
- Sealing the boards together with Marmox MSP-360 is important: -
 - It ensures a continuous waterproof barrier protecting against ingress of water.
 - Gaps in the Marmox board layer could allow moisture to get into the plywood behind causing damage.
 - Sealing the boards together with MSP-360 reduces the risk of localised moisture release from the property through the gaps between boards which can result in efflorescence and differential curing of the plaster.
 - This method allows items to be subsequently screw fixed to the wall easily
 - Marmox MSP-360 is not like silicone – it can be plastered over without affecting the bond.

Specification – Plastered IWI on a timber-clad frame wall or SIP

Plastering: Depending on the required impact resistance required, a single skim or a double application of plaster 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.

Limitations:

- 1) Compounds containing organic solvents must not come into contact with Marmox board.
- 2) Temperatures in excess of 75°C are not appropriate.

A plastered, 10 or 12mm insulation board on a metal or timber wall frame

Product Ref: Marmox Multiboard

Product Use: IWI – direct to timber or metal framed walls to be plastered.

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/..](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	STD.	Width: 600mm, Length: 1200mm, Thickness: 10, 12.5mm
allowed for	LONG	Width: 600mm, Length: 2400mm, Thickness: 10, 12.5mm
this detail:	BIG	Width: 600mm, Length: 2400mm, Thickness: 12.5mm

THIS SPECIFICATION IS FOR USE WITH 10 AND 12.5MM THICK BOARD WHICH REQUIRE CENTRES AT 300mm. USING BOARDS 20mm OR THICKER ALLOW CENTRES TO BE AT 600mm – SEE IWI 3 (20mm plus)

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:	The Marmox board is screw fixed directly to the steel or wooden frame approximately every 300mm ensuring that all board edges are supported.
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A) IF BOARDS ARE ALIGNED VERTICALLY

- Vertical studs should be 300mm apart.
- Boards should be aligned in a staggered (Brick-bond) format
- Horizontal noggins should be positioned to provide support to board edges every 1200mm
- 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 bead of MSP-360 is applied to all board edges so that it forms a waterproof seal between adjacent boards / walls / ceiling / stud frame.
- All screw-fixings are sealed with Marmox MSP-360.
- Boards are now ready to be plastered.

A plastered, 10 or 12mm insulation board on a metal or timber wall frame

B) IF BOARDS ARE ALIGNED HORIZONTALLY

- Horizontal studs should be of 300mm apart.
- Boards should be aligned in a staggered (*Brick-bond*) format
- Vertical noggins should be positioned to provide support to board edges 600mm apart.
- 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 bead of MSP-360 is applied to all board edges so that it forms a waterproof seal between adjacent boards / walls / ceiling / stud frame.
- Boards are now ready to be plastered.

PLASTERING:

- Scrim tape (*Marmox reinforcing tape*) is applied over all joints
- Dampen the surface of the Marmox board (*Marmox boards do not need priming*)
- Apply two coats of plaster – the first onto the Marmox board surface approximately 2mm thick and a further 1mm approximately one hour later.
- Any exposed (foam) edges should be covered with scrim tape before plastering.

To achieve a resistance to impact commensurate with 'Medium Duty performance' of plasterboard (*as defined by BS5234*) An additional layer of fibreglass scrim must be added between the two applications of plaster. This additional scrim layer is not necessary when only 'Light Duty performance' is required.

Notes:

- 1) Sealing the boards together with Marmox MSP-360 ensures a continuous waterproof barrier protecting against ingress of water.
- 2) Sealing the boards together with MSP-360 reduces the risk of localised moisture release from the property through the gaps between boards which can result in efflorescence and differential curing of the plaster.

Limitations:

- 1) Compounds containing organic solvents must not come into contact with Marmox board.
- 2) Temperatures in excess of 75°C are not appropriate.

A plastered, 20mm or thicker insulating board on a metal or timber wall frame

Product Ref: Marmox Multiboard

Product Use: IWI - timber or metal framed walls to be plastered.

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/..](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	STD.	Width: 600mm, Length: 1200mm, Thickness: 20, 30, 40, 50, 60mm
allowed for	LONG	Width: 600mm, Length: 2400mm, Thickness: 20, 30, 40, 50, 60mm
this detail:	BIG	Width: 600mm, Length: 2400mm, Thickness: 20mm

THIS SPECIFICATION IS FOR USE WITH BOARDS AT LEAST 20mm OR THICKER WHICH CAN HAVE CENTRES AT 600mm. USING BOARDS THINNER BOARDS REQUIRED CENTRES TO BE AT 300mm – SEE IWI 3 (10+12.5mm)

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:	The Marmox board is screw fixed directly to the steel or wooden frame approximately every 300mm ensuring that all board edges are supported.
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A) IF BOARDS ARE ALIGNED VERTICALLY

- Vertical studs are 600mm apart.
- Boards should be aligned in a staggered (Brick-bond) format
- Horizontal noggins should be positioned to provide support to board edges every 1200mm
- 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 bead of MSP-360 is applied to all board edges so that it forms a waterproof seal between adjacent boards / walls / ceiling / stud frame. All screw-fixings are also sealed with Marmox MSP-360.
- Boards are now ready to be plastered

A plastered, 20mm or thicker insulating board on a metal or timber wall frame

B) IF BOARDS ARE ALIGNED HORIZONTALLY

- Horizontal studs are 600mm apart.
- Boards should be aligned in a staggered (Brick-bond) format
- Vertical noggins should be positioned to provide support to board edges every 600mm.
- Additional vertical noggins are required to provide support to all short (vertical) edges.
- Horizontal studs may be a maximum of 600mm apart.
- 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 bead of MSP-360 is applied to all board edges so that it forms a waterproof seal between adjacent boards / walls / ceiling / stud frame.

PLASTERING:

- Scrim tape (*Marmox reinforcing tape*) is applied over all joints
- Dampen the surface of the Marmox board (*Marmox boards do not need priming*)
- Apply two coats of plaster – the first onto the Marmox board surface approximately 2mm thick and a further 1mm approximately one hour later.
- Any exposed (foam) edges should be covered with scrim tape before plastering.

To achieve a resistance to impact commensurate with 'Medium Duty performance' of plasterboard (as defined by BS5234) An additional layer of fibreglass scrim must be added between the two applications of plaster. This additional scrim layer is not necessary when only 'Light Duty performance' is required.

Notes:

- 1) Sealing the boards together with Marmox MSP-360 ensures a continuous waterproof barrier protecting against ingress of water.
- 2) Sealing the boards together with MSP-360 reduces the risk of localised moisture release from the property through the gaps between boards which can result in efflorescence and differential curing of the plaster.

Limitations:

- 1) Compounds containing organic solvents must not come into contact with Marmox board.
- 2) Temperatures in excess of 75°C are not appropriate.