

## 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](mailto: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.

<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

<b>Fixing Method:</b>	<b>Marmox Multiboard is fixed onto a layer of timber sheeting that is fixed to a frame or to a SIPS panel with tile adhesive.</b>
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- 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:**

- 1) 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.
- 2) This method allows items to be subsequently screw fixed to the wall easily
- 3) 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 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.

**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](mailto: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.

<b>Dimensions allowed for this detail:</b>	STD.      Width: 600mm, Length: 1200mm, Thickness: 10, 12.5mm
	LONG      Width: 600mm, Length: 2400mm, Thickness: 10, 12.5mm
	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.

### 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 noggin 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.

**IWI 4 (20mm plus)**

## **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](mailto: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.

<b>Dimensions allowed for this detail:</b>	STD.      Width: 600mm, Length: 1200mm, Thickness: 20, 30, 40, 50, 60mm
	LONG      Width: 600mm, Length: 2400mm, Thickness: 20, 30, 40, 50, 60mm
	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.

### **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 noggin should be positioned to provide support to board edges every 600mm.
- Additional vertical noggin 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.