

**Specification to eliminate or reduce thermal bridge at the junction of an internal wall with a ground floor**  
**INSULATION ABOVE SLAB**

**Specification:** INTWALL  
**Product ref:** Marmox Thermoblock (Standard Type)  
**Manufacturer:** Marmox UK, 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/>.

**Product Use:** Elimination or reduction in cold bridging where an internal wall would otherwise sit on the floor slab / foundation layer causing a break in the continuity of the floor insulation and reduction in the  $\psi$  value used in SAP/SBEM or DEAP/NEAP calculations to enable compliance with UK / Irish building regulations.

*This specification relates to internal walls, not party walls, i.e. separating walls within a single building or dwelling and NOT walls between separate buildings or dwellings.*

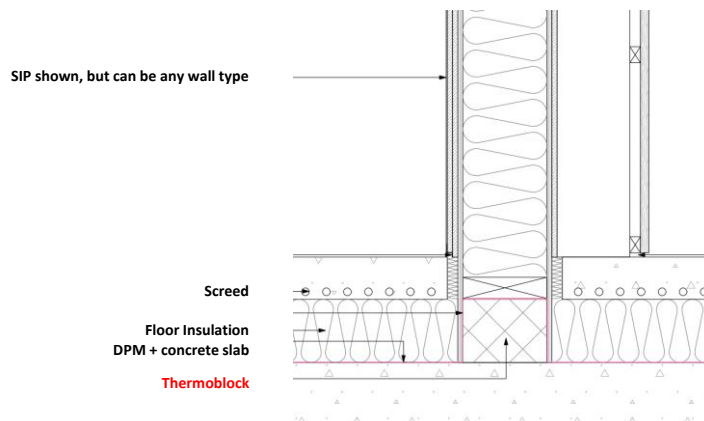
**Description:** Marmox Thermoblock is a load-bearing heat-insulating building block consisting of two rows of load-carrying epoxy-concrete columns of low thermal conductivity bonded to polymer concrete layers reinforced with fibreglass mesh which comprise the upper and lower surfaces. Thermally insulating Extruded Polystyrene surrounds the columns.

**Properties:** Average  $\lambda$  value of 0.05W/mK (to EN13164/EN13167)  
 Mean compressive strength of 9.0N/mm<sup>2</sup> (to EN772-1)  
 Fire resistance (when used as detailed below) >120minutes (to EN1365-1)  
 Water Absorption <3.5% (to EN771-4).

**Dimensions:** Length = 600mm, Thickness = 65mm or 100mm, Width = 100mm, 140mm or 215mm

Thermoblock is positioned at the base of the internal wall below the level of the screed. It is mortared to the floor slab or foundation blocks forming a load-bearing base for the wall (masonry or timber frame).

**Detail example: Insulation under screed**



Variations to the above examples can be used – masonry or timber frame wall  
 Insulation can be above or below the slab – in whichever case, Thermoblock is below the level of the screed.

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- A single course of Marmox Thermoblock: 600mm(l) x 100/140/215mm(w) x 65/100mm(ht) is used as the base for the wall at a position where it connects the floor insulation to the cavity insulation.
- The length of Thermoblocks can be cut using a brick saw.

**MASONRY WALL**

- Fix to the concrete floor or foundation blocks using a standard brick/block laying sand and cement mortar.
- Place a bead of Marmox MSP-360 on each stepped edge joint to seal the Thermoblocks together.
- Lay bricks/blocks on top using a standard brick laying sand and cement mortar. If using aircrete blocks or Porotherm blocks, this initial layer of mortar should be at least 15mm.

**TIMBER FRAME WALL**

- Fix to the concrete floor or foundation blocks using a standard brick/block laying sand and cement mortar.
- Place a bead of Marmox MSP-360 on each stepped edge joint to seal the Thermoblocks together.
- Fix the sole plate onto the row of Thermoblock bolting through the Thermoblocks approximately halfway across its width anchoring it in the slab/foundation blocks below. (*Resin anchors such as Rawlplug R-KER II are suitable*)
- A ribbon of Marmox MSP-360 is also applied between the top of the Thermoblock and the sole plate.

**Authorities:** BBA certified (10/4778)  
ISO9001 (Bureau Veritas)  
BRE – Certified Thermal Products Scheme,  
<http://www.bre.co.uk/certifiedthermalproducts/>  
Fire Safety Report: 16781B (Warrington Fire)

**Please note:**

- Thermoblocks should be fully supported and not span voids.
- The width of the wall sitting directly on top of the Thermoblocks cannot be narrower than the width of the Thermoblock. *They should be approximately the same width or slightly wider.*
- If necessary, two or even three Thermoblocks can be laid side by side to create a wide base.
- **Thermoblocks cannot be stacked** – only one single layer is permitted

**Waterproofing:** *Although when sealed together Thermoblock creates a permanent waterproof barrier, Thermoblock is not officially a DPM. A separate Damp Proof Membrane should therefore be included in the detail. The DPM can be fixed directly above or below the Thermoblock but because Thermoblock is waterproof, typically it is fixed above the Thermoblock layer.*