

Specification to eliminate or reduce thermal bridge at the junction of a masonry cavity wall with a floor

Product ref:	Marmox Thermoblock (standard)
Manufacturer:	Marmox Ltd
Address:	Marmox UK, Caxton House, 101 Hopewell Drive, Chatham, Kent ME5 7NP. 01634 835290; Email: info@marmox.co.uk ; http://www.marmox.co.uk/ .

Description: Marmox Thermoblock is a load-bearing heat-insulating block. It is positioned at the foot of a load-bearing or non-load bearing walls to eliminate/reduce the cold bridge. Marmox Thermoblock consists of two rows of load-carrying epoxy-concrete columns of low thermal conductivity bonded to the block's top and bottom fibre-reinforced polymer concrete surfaces. Thermally insulating Extruded Polystyrene surrounds the columns.

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

Product Use: Elimination/Reduction of cold bridge at the floor/wall junction enabling a low ψ value to be used in the SAP or SBAM or DEAP energy loss calculation

Specifications:	A single course of Marmox Thermoblock: 600mm(l) x 100/140/215mm(w) x 65mm(ht) is the starter course for the inner leaf of the wall in place of the bottom row of blocks. Thermoblock is fixed to the floor with normal mortar which is also used to lay subsequent courses of bricks/blocks on top. Thermoblock edges are sealed together with a ribbon of Marmox MSP360 on the stepped edges to provide a waterproof barrier.
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Properties: Average λ value of 0.047W/mK (to EN13164/EN13167), Mean compressive strength of 9.0N/mm² (to EN772-1), fire resistance >120minutes (to EN1365-1) Water Absorption <3.5% (to EN771-4).

Authorities: BRE – ψ values provided by BRE on their Certified Thermal Products Scheme: www.bre.co.uk/certifiedthermalproducts
BBA certified (10/4778),
ISO9001 (Bureau Veritas)
Fire Safety Report: 16781B (Warrington Fire)

Fixing system: Fix to the concrete floor or dpm using a standard brick/block laying sand and cement mortar. Ensure the Thermoblock is supported by an even base across its whole width. Fix to the bricks/blocks above using a standard brick/block laying sand and cement mortar. If using lightweight blocks, this initial layer of mortar should be at least 15mm.

Treatment: The vertical sides of the Marmox Thermoblock must not be left visible. For typical installation, the exposed face is butted up to the floor and wall insulation layer or covered with the floor screed.

DPM: *Although when sealed together Thermoblock creates a permanent waterproof barrier, Thermoblock is not officially a DPM.* The Damp Proof Membrane must be applied to the detail as though the Thermoblock were simply another normal block in the wall. Typically, the DPM is fixed above the Thermoblock layer.

A waterproof barrier should be created by sealing the edges with a sealant. Fixed to each other using Marmox MSP360 along the joint.

Application: *1 tube will cover approximately 36 of the 100mm wide blocks, 24 of the 140mm wide blocks or 20 of 215mm wide blocks*

Joint size (mm)	6x6	9x6	12x6	25x10	7x7 fillet	10x10 fillet
linear metre/ cartridge	8.3	5.3	3.9	1.1	1.9	5.8

Limitations:

- 1) The Thermoblock must not be wider than what is laid on top of it. (*i.e. 100mm bricks cannot be laid on top of 140mm wide Thermoblocks*)
- 2) Thermoblocks cannot be laid on top of each other.
- 3) The Thermoblock must be sitting on a flat, level surface.
- 4) Temperatures in excess of 80°C are not appropriate (*for temperatures above 80°C, use the PIR version*)
- 5) Must not be used in environments where organic solvents such as petrol may come into contact with them.
- 6) Must not be used with any adhesives, sealants, waterproofing treatments that contain organic solvents. The compatibility of ANY none standard material should be determined by checking whether that material is compatible with polystyrene – if it is not, then it cannot be used with Thermoblock.
- 7) Should not be used when there would be potential contact with flame applied bitumen membranes (*for these applications use the PIR version*)