

**Specification to eliminate or reduce thermal bridge at base of a Parapet Wall  
 INSULATION ABOVE SLAB (WARM ROOF)**

<b>Specification:</b>	<b>PARAPET</b>
<b>Product ref:</b>	Marmox Thermoblock (Standard Type)
<b>Junction Type:</b>	<b>E15</b>
<b>Manufacturer:</b>	Marmox Ltd
<b>Address:</b>	Marmox UK, Caxton House, 101 Hopewell Drive, Chatham, Kent ME5 7NP. 01634 835290; Email: <a href="mailto:sales@marmox.co.uk">sales@marmox.co.uk</a> ; <a href="http://www.marmox.co.uk/">http://www.marmox.co.uk/</a> .

**Product Use:** Elimination or reduction of the cold bridge of the parapet wall with the internal surfaces in the room below.

**The parapet wall insulation slab is not needed when using Thermoblock**

Reduction in the  $\psi$  value used in SAP/SBEM or DEAP/NEAP calculations to enable compliance with UK / Irish building regulations.

**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 >120minutes (to EN1365-1)  
 Water Absorption <3.5% (to EN771-4).

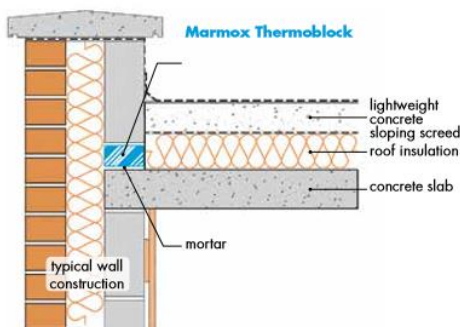
**Dimensions:** Length = 600mm, Thickness = 65mm or 100mm, Width = 100mm, 140mm or 215mm

**With insulation Above the Roof Slab**

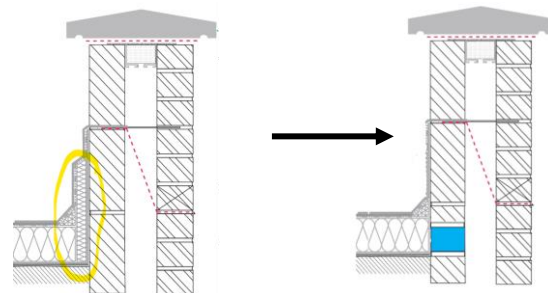
Thermoblock is used as the parapet wall's starter course on the roof slab. It is positioned so that it connects the insulation above the slab

It can also be used in the location on the right as part of the extending inner leaf.

**Typical Detail (parapet wall built on slab)**



**Detail with Thermal break in inner leaf**  
 showing that **the upstand insulation is not needed**



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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 starter course of the inner leaf at a position where it connects the roof insulation to the cavity insulation if present.

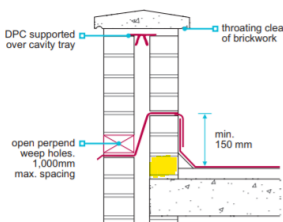
- Thermoblock is fixed to the slab with c.10mm normal bricklayers' mortar.
- The length of Thermoblocks can be cut using a brick saw.
- At corners where a 90 degree angle is required, a flat short edge can be achieved either by cutting the block with a brick saw or cutting off the overlap which can be done using a hand saw
- Thermoblock edges are sealed together with a ribbon of Marmox MSP360 on the stepped edges to provide a waterproof barrier to protect the insulation within the wall.
- Normal mortar is used to fix the subsequent courses of bricks/blocks on top of the Thermoblock.

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

**Important notes:**

1. Thermoblocks should be fully supported and not span voids.
2. The width of the Thermoblocks should be approximately the same width as the blocks which are being laid on top of them.
3. **Thermoblocks cannot be stacked** – only one single layer is permitted
4. Thermoblocks must not be used when there would be potential contact with flame applied bitumen membranes. (*heat applied with a flame gun could distort the shape*)

**DPM:** Although when sealed together with MSP-360 a row of Thermoblocks creates a permanent waterproof barrier, a DPM is still required. This can be applied to the parapet wall design as though the Thermoblock were simply just another brick in the wall. Typically, the DPM is fixed to the brick/block one or two courses above the Thermoblock: -



However, if necessary, a DPM can be fixed directly on to the surface of a Thermoblock using standard bricklayers' mortar.

Marmox MSP360, supplied in 300ml tubes: -

- Marmox Thermoblock 100mm wide require 1 cartridge per 36 blocks
- Marmox Thermoblock 140mm wide require 1 cartridge per 24 blocks
- Marmox Thermoblock 215mm wide require 1 cartridge per 20 blocks