

# Construction board

## Floor application

CI/SfB

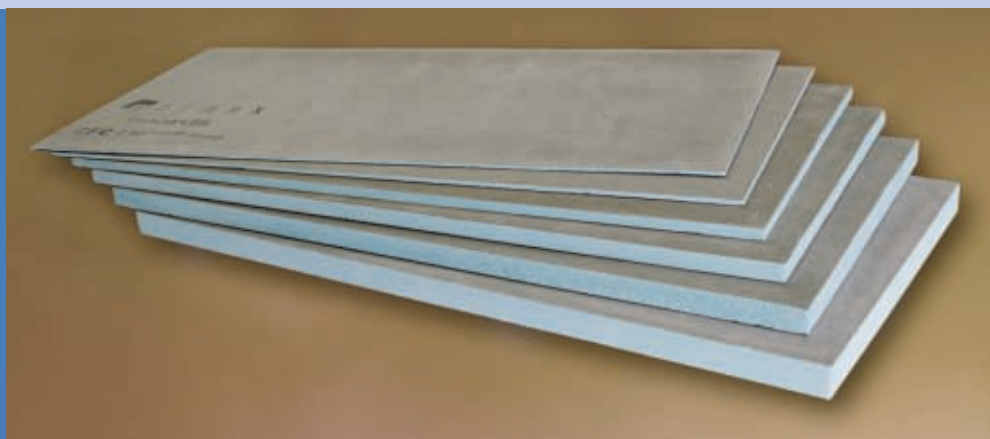
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February 2004  
Design data

### Ideally suited for use with underfloor heating systems

A high performance, reinforced insulation board made of waterproof extruded polystyrene that has a fibreglass mesh embedded into a cement polymer mortar on each face. Marmox Construction Board is the perfect solution for insulating and waterproofing in one operation.

Underfloor heating:  
It has to be  
Marmox for  
insulation



### Board sizes

Thickness (mm)	Width (mm)	Length (mm)	Weight (Kg/Board)	U Value (W/m <sup>2</sup> k)
6	600	1250	1.95	4.50
10	600	1250	2.22	2.70
20	600	1250	2.48	1.35
30	600	1250 or 2500	2.74 or 5.48	0.90
40	600	1250 or 2500	3.00 or 6.00	0.67
50	600	1250 or 2500	3.26 or 6.52	0.54

### Advantages for under tile heating

- Marmox is load bearing – 30 tonnes/m<sup>2</sup>
- Marmox has a high U value – 2.7 W/m<sup>2</sup>k for 10mm boards
- Marmox will keep the room warmer and retain the heat longer
- CFC and HCFC free
- Soundproofing properties
- 10 year manufacturer's warranty

By laying the heating element on top of the Marmox board, a warm floor can be achieved within 20 minutes.

### Caution

Ensure that there will be nothing covering the heating system that will firmly block the the heat rising (ie. polystyrene-filled floor cushions, etc). This could result in damage caused by localised overheating.



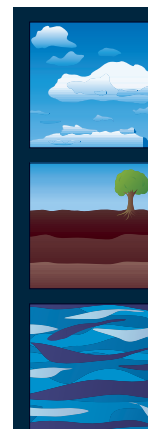
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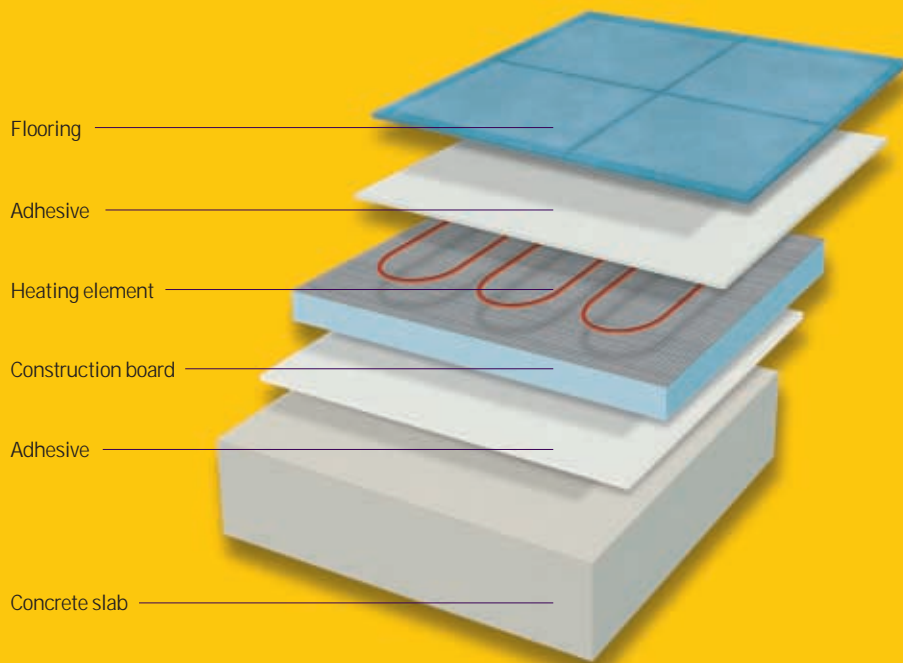
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■ Web: [www.floorheatingonline.com](http://www.floorheatingonline.com)



environmentally aware

# Typical assembly of underfloor heating



Stockist:

Marmox is a technically advanced product which saves you money by preventing heat loss into concrete floors. Ideal for use with under-tile heating systems, it is recommended by leading underfloor heating manufacturers.

## Application

### Fixing to concrete floors

Prior to fixing of Marmox Construction board, all traces of existing finishes should be removed back to the concrete substrate. The floor should be level and dust free.

New concrete or screed should be well cured prior to laying Marmox board.

A propriety cement based floor tile adhesive should be used following the manufacturers instructions. Where the boards are to be used in conjunction with under floor heating, a *flexible* floor tile adhesive should be used for boards of 6mm and 10mm depth.

Apply the bed of adhesive to the floor with a notched trowel. Any slight depressions in the concrete substrate will normally be taken up with the thickness of the adhesive. Boards should be thoroughly bedded, ensuring that no voids remain beneath them. Butt them close together, laid in a chequer plate fashion, like bonding brickwork. A waterproof joint can be made by running silicon sealant along the edge and butting the adjacent board up to it.

When the tile adhesive is dry, tape board joints with a fibreglass reinforcing scrim tape.

### Tile fixing

Tiles should be a minimum of 150mm x 150mm and fixed using a thin solid bed fixing technique, ensuring no voids remain under the tiles. Once the tile bed has hardened sufficiently, the joints between the tiles can be grouted in the usual manner.

### Movement joints

Marmox Construction boards must not bridge movement joints in the sub floor. The integrity of such joints should be maintained through the board/tile bed and should be sealed in the appropriate manner.

## Property specification

Density	DIN 53420	36/kg/m <sup>3</sup>
Thermal conductivity	DIN 52612	0.027 watt/mK
Thermal conductivity (5 years)	DIN 52612	0.032 watt/mK
Compressive strength	DIN 53421	3.0kg/cm <sup>2</sup> (300kN/m <sup>2</sup> )
Water absorption (immersion)	DIN 53428	0.2% by vol
Water absorption (capillary)	DIN 53428	Nil
Coefficient of linear expansion		70 x 10 <sup>-6</sup>
Flammability	DIN 4102	B1
	BS 476 Part 6,7	Class 0