Specification: Tile backer board inside a concrete swimming pool

Product Ref: **Marmox Multiboard (*used with Mapei's waterproofing system*)**

Product Use: Thermally insulating intermediate decoupling substrate to ceramic tiles within the inside of a concrete swimming pool.

Manufacturer: Marmox Ltd
Address: Marmox UK Ltd, Caxton House, 101 Hopewell Drive, Chatham, Kent ME5 7NP.
01634 835290; Email: sales@marmox.co.uk; http://www.marmox.co.uk/.

Description: Extruded polystyrene covered on both sides with fibreglass mesh encased in a c.1mm layer of polymer modified concrete permanently bonding the mesh to the polystyrene.

Dimensions Suitable: Width = 600mm, Length = 1200mm, Thickness = 12.5mm or thicker

Properties: Waterproof and freeze-thaw resistant
Low thermal conductivity (0.034W/mK) so acts as a thermal break.
Dimensionally stable irrespective of temperature and humidity conditions.
Absorbs lateral movement from the ground before it reaches the tiling thereby reducing the risk of cracking in the paved/tiled surface.

Authorities: ISO9001, ISO14001 (*Bureau Veritas*)

CE/UKCA: EN13164 – T1 – CS(10\Y)400 – CC(2/1/10)115 – WL(T)3

Fixing Method: Marmox Multiboard is fixed to the concrete base with continuous flat layer of tile adhesive which are sealed at junctions using the waterproof sealant MSP-360.

Specification – substrate preparation

1) The concrete base onto which the tile backer boards are to be fixed should be designed to EN1992-3 and must be dimensionally stable (*if fresh, at least 21 days old*), relatively flat (<3mm over a 2m length) and without any voids.
2) If the flatness, integrity and durability concrete substrate cannot be guaranteed, apply a levelling render *Mapei Planitop Fast 330* giving a thickness of between 3 -30mm.

Specification – fixing the Marmox boards

1) Minimum Marmox board thickness is 12.5mm but thicker boards can be used (upto 60mm) to provide greater thermal insulation.
2) Using a 6 to 8mm notched trowel, apply a continuous layer of 'flexible grade' cement-based tile adhesive *Mapei Keraflex Maxi S1* to a the Marmox board to give a compressed adhesive thickness of 3 to 4mm.
3) Press the boards evenly to the concrete walls and base making sure that there are no voids between the concrete and the Marmox boards.
4) At wall junctions corners, leave a 5mm gap and fill this with Marmox sealant: MSP-360
5) When movement joints are necessary (*as required by BS5385: 2015*), these must not be covered with the Marmox boards - these movement joints must be continued in the Marmox layer. MSP-360 can be used to seal these joints.

![marmox multiboard logo - Waterproofing • Insulating • Drylining](logo)

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Specification – waterproofing the joints

1) Apply the first layer of waterproofing coating: *Mapei Mapeilastic, applied with a roller to give a thickness of c.1.5mm*
2) Whilst this coating is still wet, press into its surface the Mapei flexible tape + internal corners over ALL board joints and corners (*Mapei Mapeiband*)
3) When cured, apply a second coating of the waterproofing material (*Mapei Mapeilastic)* giving a total thickness of c.3.0mm

Specification – tiling

1) When cured, fix the tiles to this surface using the same flexible cement-based tile adhesive (Mapei Keraflex Maxi S1) as was used to fix the Marmox boards down with. Again, it is essential that there are no voids between the tiles and the Marmox board.
2) Finally, grout the tiles using an epoxy grout: *Mapei Kerapoxy*

Limitations:
1) Compounds containing organic solvents must not come into contact with Marmox board.
2) Temperatures in excess of 75°C are not appropriate.
3) Boards should, when possible, be laid in a staggered format.