

Floor Finishes

Ceramic Tile & Stone For Underfloor Heating



Ceramic tiles and natural stone flooring finishes are a perfect fit for underfloor heating as they have little resistance to the flow of heat, meaning that they heat up fast and are very efficient.

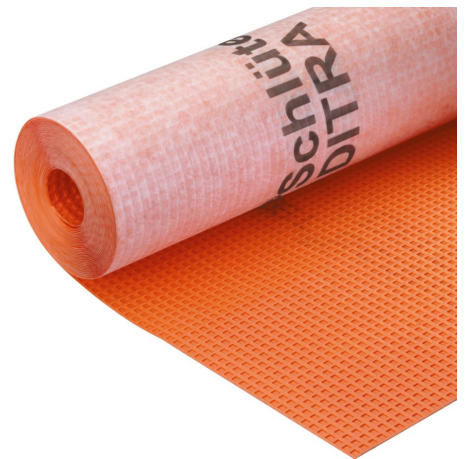
For a successful installation of ceramic tiles or natural stone floor finishes, a level and stable sub-floor is critical, and this criteria is true whether underfloor heating is being used or not.

When used over a solid concrete screed, this should be perfectly flat, level and stable, and is perfect for ceramic or stone tiles. A decoupling layer over the sub-floor should always be used before tiling.

When used over the Mi-Heat UltraFlo and UltraBoard low profile underfloor heating solutions, both solutions provide a rigid and stable layer below the ceramic or stone tiles. A decoupling layer should always be fitted between the UltraFlo and UltraBoard before tiling.

If tiles are to be laid over a timber suspended floor or floating floor, greater care needs to be applied and any movement in the sub-floor needs to be remedied. This can be achieved by gluing and screwing down any loose or moving floorboards, or replacing if necessary. If using the Mi-Heat UltraDeck fitted between the joists a tongue and grooved chipboard deck should be glued and screwed to the joists. In all situations, a de-coupling membrane should be laid before tiling.

If the sub-floor is Mi-Heat's UltraDeck fitted as a floating floor over insulation, then a structural tongue and grooved floor board, which would usually be a 22mm plywood deck, should be free floated over the top. A 10-15mm expansion gap should be left around the perimeter of the room. A decoupling membrane over the plywood deck must be installed before tiling. (Insulation should have a compressive strength of 180kPa or greater).



Decoupling Membranes

When the floor finish is to be ceramic or natural stone tiles Mi-Heat strongly advises to use a decoupling membrane between the sub-floor and the tiles. All professional tilers and floor laying companies recommend this approach, even if underfloor heating was being contemplated or not.

The reason is that there is a possibility of some movement in the subfloor, and although this would not cause any structural problem or any damage to the underfloor heating, these very tiny movements could effect the very rigid and inflexible ceramic or stone tiles, resulting in them cracking and eventually lifting. With a decoupling membrane there is a separation between the sub-floor and the tiles which would ensure that any movement would be isolated and not effect the tiles.

Any decoupling membrane selected should be checked to make sure it is suitable for underfloor heating, and that also goes for the flexible adhesive.

For all tiling BS5385 should be considered as well as the recommendations of the Tile Association. Tile and stone manufacturers instructions should also be followed when installing.

