



SPEEDHEAT

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TILE HEATING: Information for Tilers

The Speedheat range of tile heaters have been manufactured and installed in thousands of houses worldwide since 1987. The company will celebrate its 20th year next year as the biggest manufacturer of floor surface heating worldwide with distribution in Australia, South Africa, Holland, Hong Kong, Switzerland, the UK and the USA.

The success of the product lies in the relative thinness of the 1mm thick heating element which does not affect the floor levels in existing and new buildings. The heating element and the fibreglass mesh covering it, is absorbed in the thickness of the tile adhesive. Located just below the surface, it offers on-demand heating within 30 minutes.

The heating element will heat to a maximum temperature of 38-40°C which is slightly warmer than average body temperature. This must be seen in the context of the average temperatures of more than 1000°C at which ceramic tiles are fired and the average service temperature ranges of -5°C to 80°C of most flexible tile adhesives.

The concern with tiles cracking or lifting as a result of Speedheat floor surface heating is therefore unfounded. The above problems are usually associated with movement in the subfloor due to flexing, lack of expansion joints in larger areas or insufficient adhesive coverage. Good tiling practice and flexible adhesives are the prerequisites.

Most modern cement based adhesives incorporate additives which give them flexibility. The use of rubber based adhesives is therefore not a prerequisite for tiling over floor surface heating. The heater installation process is as follows before tiling can proceed please consider this process when planning your tiling:

Where a sand/cement screed/topping is planned, the heating must be installed on top of the screed/topping. The floor is vacuumed and a coating of "Bondcrete" diluted 1:4, or other bonding liquid is applied. When dry, then for:

A (for smooth concrete or fibreglass waterproofing): the backing paper on the tape is removed; the heater is stretched flat, and stuck down on the surface. The heater is covered with an adhesive fibreglass mesh. The total thickness of the heating system is less than 1.5mm.

B (for sand/cement screed/topping): in order for the tape to stick well to a sand/cement screed, it must be a good 1:4 cement/sand mix, trowelled smooth and allowed to dry properly. It is not possible to stick the heater down on moist screed/toppings or weak and dusty sand/cement screed/toppings.

C (for timber construction) if the floor structure is timber, Hardiflex tile underlay sheets must be installed over the timber floor. The heater and mesh is stuck to the Hardiflex sheeting as in **A** above.

Use standard cement based flexible tile adhesive, which must be carefully applied with a trowel taking care not to press down too hard but ensuring full adhesive penetration through the mesh. Work carefully to avoid damage to the heater by cutting tiles off the heater and removing excess adhesive in the tile joints before drying. Scraping out the excess adhesive later before grouting could damage the heater. Do not cut expansion joints in the tiles with an angle grinder. Allow seven days for the grouting to dry before turning on the heaters.

A tiling monitor is attached to the heater which must remain connected to the heater until the grouting has been completed. The monitor LED will flash green and will turn to a red flash and sound a beeping alarm if the heater should be damaged. In such an unlikely event, the tiler must remove the adhesive in this area, mark the spot where he was working and call the Speedheat installers' number on the monitor. The damage must be repaired before continuing so that the monitor can be re-connected and further damage does not go undetected.

Experience has shown that prevention is better than cure and good site management of the tradesmen working over the heaters is the best form of prevention. Tilers are generally very co-operative when tiling over a heating product which enhances their tile product, and therefore take due care not to damage the heating element during tiling. Speedheat has a mutually rewarding relationship with tilers on their database who they recommend to their customers when requests for tiling options are received.

IMPORTANT: ALL FIXED WIRING INSTALLATIONS MUST BE CONNECTED BY AN ELECTRICIAN!