

THERMAL SURFACES

Surface Heating & Cooling Specialists

SOLID FLOORS

SCREED OVER POLYTHENE BARRIER AND PLAIN FLOOR INSULATION



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Thermal Surfaces underfloor heating/cooling systems can be incorporated in to any type of floor construction that has a floor screed above it.

The elements of the system above the concrete sub-floor are perimeter/edge insulation to all walls and elevations projected through the screed, floor insulation, vapour barrier/separating layer above the insulation, pipe fixing system and underfloor heating/cooling pipe-work.

The system will be selected according to the constructional requirements of the project and we can recommend the most suitable underfloor heating/cooling system for the application. We can also provide guidance on the type and depth of screed most suitable for the system being installed. Typically solid floor underfloor heating systems can give outputs up to 120 watts/m² dependant on flow water temperature to the underfloor heating pipe-work and the floor finish type.

Once the underfloor heating/cooling pipe-work has been installed, it is pressure tested to ensure it is mechanically sound before the floor screed is installed. The floor screed is then allowed to dry and cure on the recommendations of the floor screed installer/manufacture. Once the floor screed is sufficiently dry and cured the floor finish can be installed.

Long Pipe Staple System for plain rigid insulation.

The long pipe staple system used for plain insulation is similar to the laminated grid insulation system. The pipe staples are longer to ensure the underfloor pipe-work is secure enough to the plain rigid insulation which does not have the woven polypropylene laminated grid. It is important to remember a vapour barrier/separating layer is still required above the plain floor insulation and that the floor insulation is rigid (typically expanded polystyrene, extruded polystyrene, polyisocyanurate or phenolic foam) and a minimum of 35mm depth. This system is popular because the main contractor can provide the insulation and vapour barrier to control the installation and duration of this element of the work. However there is more risk that the underfloor pipe-work can be moved out of position as it is not as secure as alternative systems such as the laminated grid insulation.

SOLID FLOORS - FLOOR SECTION SCREED OVER POLYTHENE BARRIER AND PLAIN INSULATION

