

UNDERFLOOR HEATING SYSTEM WITH TILE FINISH:

Material: [LAVA MOULDED TILE].

Supplier: [BACK TO EARTH (SW) LTD, 7 Tuns Lane, Silverton, Devon. EX5 4HY, Tel:- 01392 861763]

- Product reference: [Lithotherm Underfloor heating tiles].

Thickness: 45mm.

Preparation: Ensure that the surface of the concrete slab is clean, dry and flat. Any protrusions should be removed by grinding down or applying a levelling screed to the surface. Lay insulation and ensure insulation boards form a flat, level surface with no rocking movement when load applied. All voids should be filled as per insulation suppliers recommendations and perimeter insulation fitted to the surface of the wall to allow movement in the perimeter of the system.

Installation requirements:

- Starting with a full tile placed 100-120mm away from the wall perpendicular to the grooves and abutting the perimeter insulation on the edge parallel to the grooves, lay the Lithotherm tiles in rows with the tiles firmly butted up to each adjacent tile.
- The second row should start with a half tile, connecting the T&G connection with the row adjacent to it, to create a brick bond pattern. Generally the rows should proceed across the floor in such a way that space is left to be able to install the last 5-6 rows, one tile at a time in a diagonal line, to prevent the installer having to walk on the tiles.
- Rows should be finished in such a way that the brick bond pattern is maintained and the 100-120mm gap is left against the wall perpendicular to the grooves.
- The tiles should not be walked on during installation, except by the installer and only when necessary. Lay boards over the tiles to prevent damage if access is required.
- Once complete, the pipes can be installed in loops of around 100m (roughly equivalent to 10m² of tiles). The pipe should run from the flow side of the manifold to the tiles and be laid in every 4th groove, starting with the first. Pipes can be bent by hand at the end of each run.
- Once the 50m point is reached on the pipe (identified by the length markings on the sidewall of the pipe) then the pipe should return in between the first set of pipes laid, at the same spacing, so that once complete every second groove is filled.
- Once all the pipework is installed and pressure tested fill the voids around the perimeter of the tiles, including the pipework, with a dry-mix cement screed, flush with the surface of the tiles.
- Lay Lithotherm reinforcing mesh over the entire surface of the floor and bond to the surface of the tiles with a 3mm layer of flexible tile adhesive. Any adhesive conforming to BS EN 12004 C2TE is suitable. Ensure 100mm laps on the mesh at all joints.
- UFH system must be off and at ambient internal temperature during laying of mesh and adhesive to allow correct curing of the adhesive.
- Once cured in line with the adhesive manufacturers guidance the surface is suitable for receiving tiles as per tile manufacturers guidance.

For more information on installation please contact Back to Earth (SW) Ltd or see the online installation guide at <https://www.youtube.com/watch?v=yxZhFy46BC4>.