

Roth Original Tacker System

System description

The Roth Original Tacker® System is characterised by a high degree of flexibility and easy assembly, even for unusual floor plans. The heat is emitted evenly across the whole floor structure, thus creating an optimum room temperature. Because of the low system temperatures, alternative energy systems can be ideally combined with the Roth Original Tacker® System as well as conventional heat generation systems.

Insulation

The Roth edge insulation strip is attached to the rooms entire circumference before installation of the insulation.

The PE film affixed to the Roth edge insulating strip covers the joint between edge insulating strip and floor insulation.

A polyethylene 0.2 mm thick slip layer is required over the entire insulation surface to prevent physical contact between screed and insulation, chemical reaction can occur between screed and insulation foil to create air bubbles in the screed, reducing thermal output and screed integrity.

High grade floor insulation ('Celotex' or equivalent) must be installed over the entire floor area.

Please note all floor insulation must conform to Part L of the Building Regulations.

Important!

If you use the underfloor heating to dry the concrete, do this at a low flow temperature, typically 5 degrees higher than the concrete temperature. Always ask the concrete supplier before starting the drying process. In larger buildings such as warehouses and industrial buildings, floors are divided into smaller areas and this is done using expansion joints.

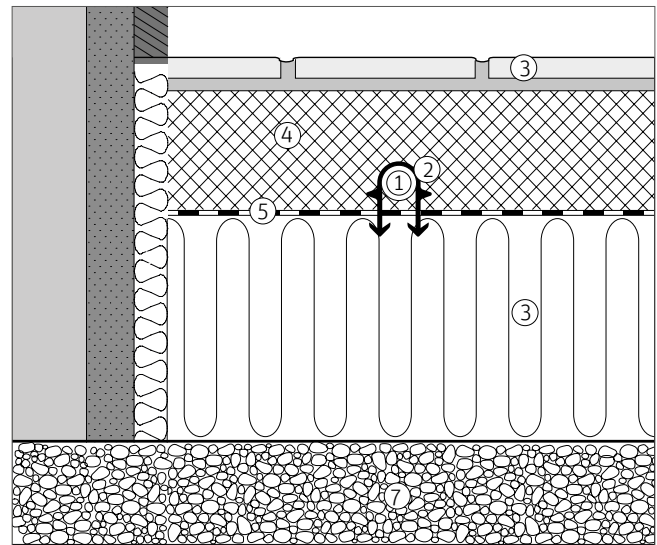
The places where the underfloor heating pipes cross the joints must be protected against the movements of the concrete surfaces; this can be achieved using a piece of split conduit.

Pay attention to the stricter requirements for insulation when there is underfloor heating in the ground floor and comply fully with the applicable Building Regulation and other rules.

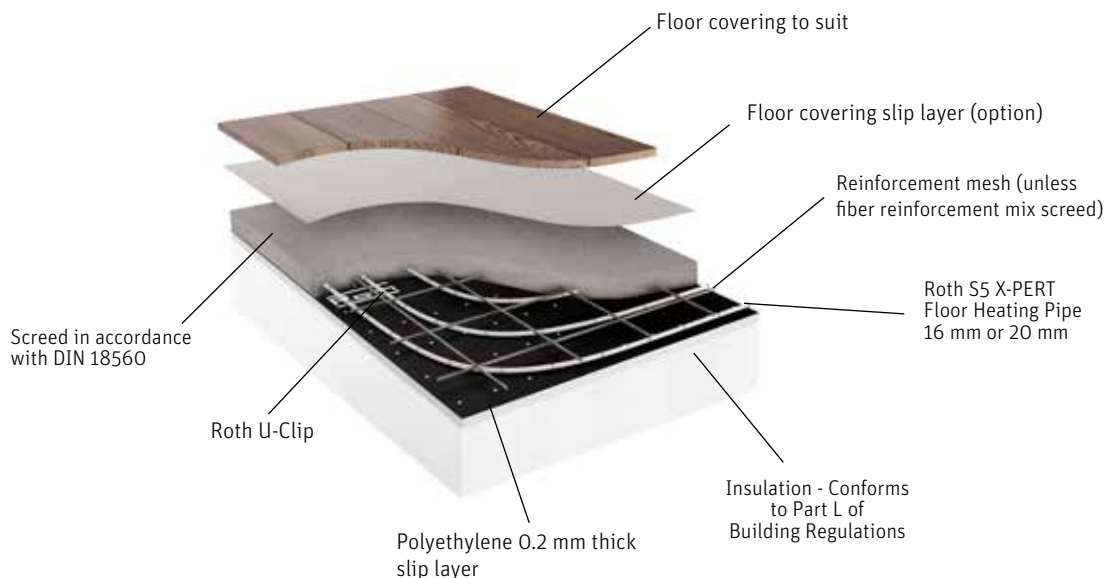
Floor coverings

Underfloor heating can be used with a variety of floor coverings including wood, carpet, laminate, vinyl and tiles. However, the heat-up time and heat output of your system will depend on the thermal conductivity of the flooring material you choose.

- > Tiles & stone - Best flooring to use with underfloor heating.
- > Engineered timber - Suitable flooring, please check temperature limit with manufacturer.
- > Carpet - overall tog rating, including underlay must not exceed 2.5 tog.

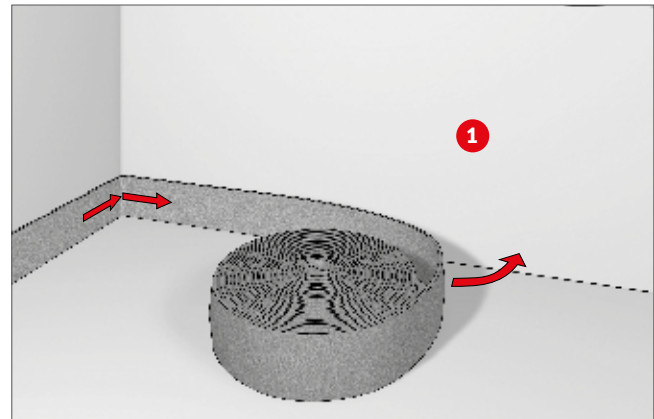


- 1 - Roth S5 X-Pert Floor Heating Pipe 16 mm or 20 mm
- 2 - Roth U-Clip
- 3 - Floor covering to suit
- 4 - Screed in accordance with DIN 18560
- 5 - Polyethylene 0.2mm thick slip layer
- 6 - On site insulation - Conform to Part L of Building Regulations
- 7 - Load bearing sub-surface
- 8 - Roth edge insulation strip

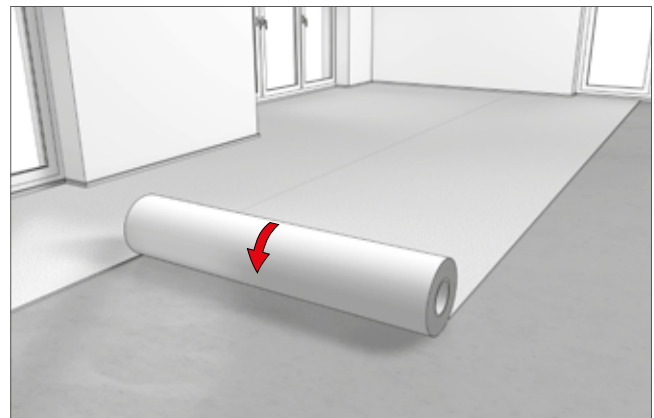
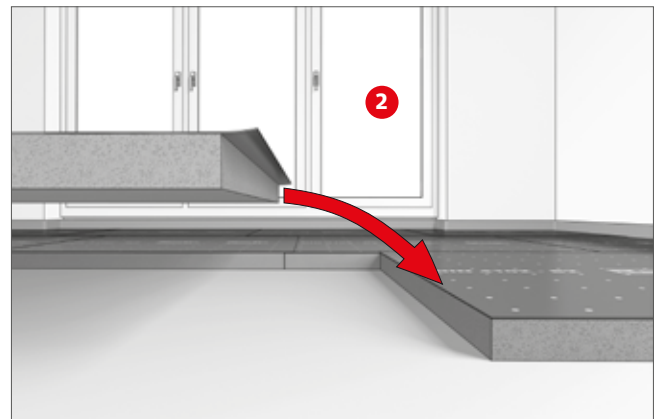


Roth Original Tacker System - Installation

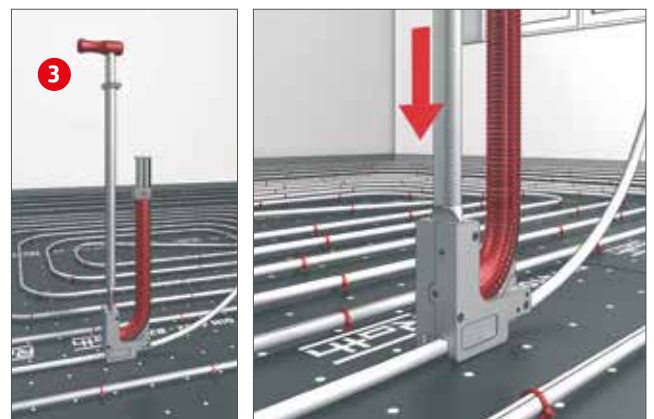
1. Start by laying Roth edge insulation along all the walls in the rooms where floor heating is to be installed. The edge insulation should sit neatly and flush to the wall.



2. The floor insulation is laid over the entire area. The polyethylene 0.2 mm thick slip layer can now be installed over the entire insulation surface to prevent physical contact between screed and insulation. All joints in the polyethylene are sealed to prevent screed leakage.

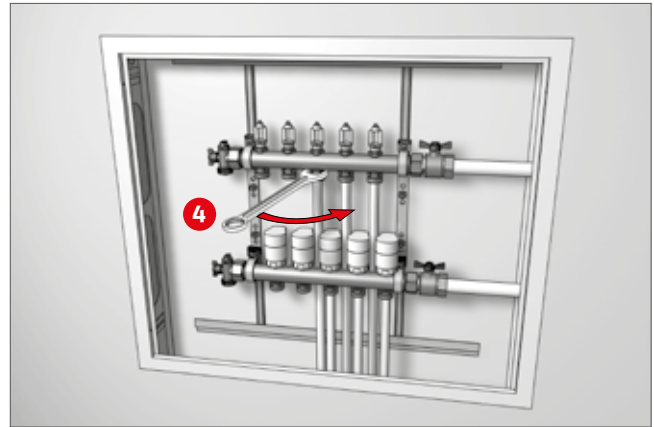


3. Laying of heating pipe can now be carried out. This is done with the Roth Tacker gun. The clips should be secured into the insulation at approx. 0.5 meter spacing. The spacing distance of the heating pipes depends on the calculated heat demand in the room, as well as the concrete/screed thickness and floor covering above the heating pipes.



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4. The piping can be completed by connecting the underfloor heating pipes to the manifold.
Attention! The floor heating pipes must always be pressure tested in accordance with applicable legislation.



5. Concrete/Screed can now be poured. In some cases, there may be a need/requirement for laying reinforcement mesh before pouring.



6. The underfloor heating system is now installed and the concrete/screed layer is complete, you can now start laying your floor.

Attention! Particular attention must be paid to the drying time of the concrete, this is something that should be clarified before starting laying foam/cardboard with wooden floor as it can damage the structure.

Roth

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