UNDERFLOOR HEATING

Nu-Heat UNDERFLOOR & RENEWABLES

Floor installation instructions

SM14/SMC14 – 14mm Fastflo™ with building mesh

SM14

Supplied by Nu-Heat

14mm Fastflo™ tubing

Edge expansion strip

Supplied by others

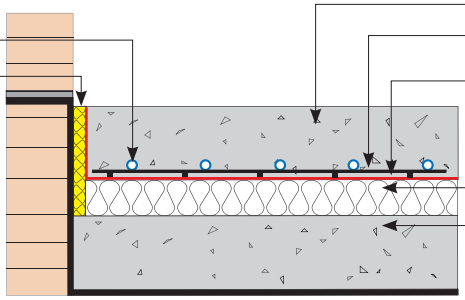
Concrete or screed

A142 builders' mesh

250µm polythene protection layer

Insulation

Concrete slab



SMC14

Supplied by Nu-Heat

14mm Fastflo™ tubing

Supplied by others

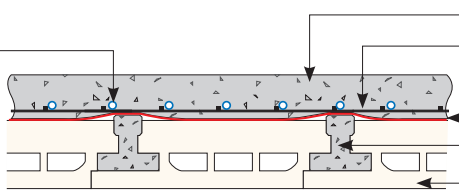
Concrete screed

A142 builders' mesh

DPM or similar

Precast concrete beam

Insulating plank



TECHNICAL INFORMATION

Screed

Standard 65mm deep sand and cement screed should be used at the ratio of 4 parts sand to 1 part cement. Care should be taken to ensure good contact between the underfloor heating tubes and the screed. It is important that the screed is as dense and consistent as possible to aid heat transfer.

Liquid screed

If liquid screeds are to be used please contact Nu-Heat for installation information, or see website at www.nu-heat.co.uk.

The screed must be sufficiently dry before coverings may be applied.

Insulation

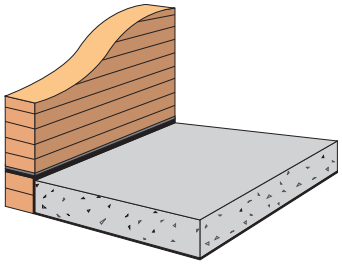
Ground floors: The insulation beneath the floor should be 70mm 'Celotex' or equivalent, or it must conform to Part L of the Building Regulations, whichever is the greater.

Upper floors: Insulation should be to a minimum of 30mm 'Celotex' to prevent downward migration of heat.

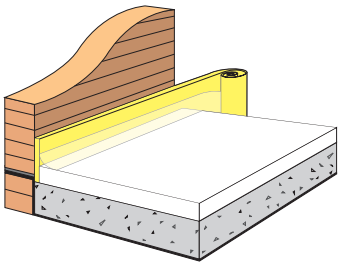
Apart from the edge expansion strip which is supplied by Nu-Heat, insulation materials are most economically sourced from local builders' merchants.

Note: The 'edge expansion strip' supplied by Nu-Heat should be fitted around all walls as an expansion medium. On external walls additional insulation material will be required to comply with Building Regulations. When installing over a composite floor please follow the manufacturer's instructions, taking particular note of any important variations.

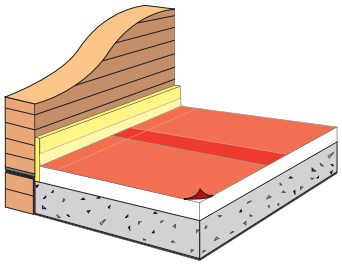
SEQUENCE OF LAYING THE FLOOR



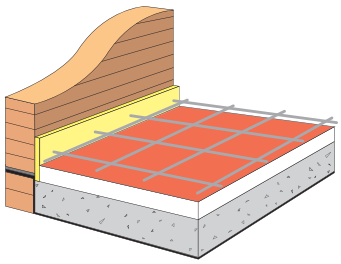
1 Lay the damp-proof membrane (dpm), concrete slab and damp-proof course (dpc) in accordance with current Building Regulations.



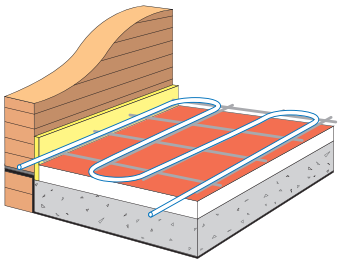
2 Roll out the edge expansion strip around the sides of the room and lay the floor insulation in accordance with current Building Regulations.



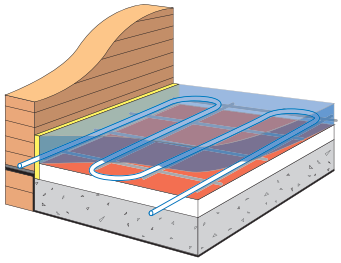
3 Cover with a 125µm polythene protection layer, overlapping sheets by at least 65mm. This layer is a Building Regulation requirement to protect insulation from the screed.



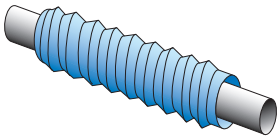
4 Lay A142 builders' mesh across the entire floor.



5 Install the Fastflo™ tube as in the instructions on the following page.

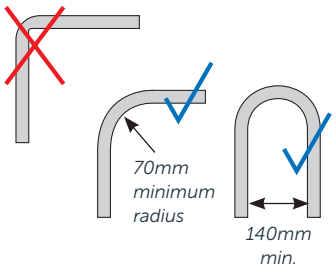


6 Screed the floor whilst the system is under 1 Bar pressure. (For commercial applications a minimum screed thickness of 75mm is required. The floor heating tube must be a least 25mm from the surface of the screed.)



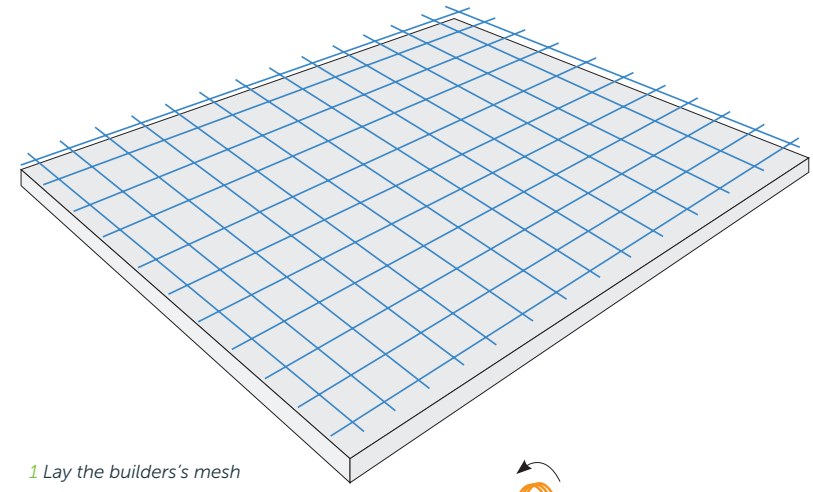
Notes:

On floor areas over 40m² a protective sleeve should be used to cover pipe where it crosses expansion joints. Please contact Nu-Heat for supply.

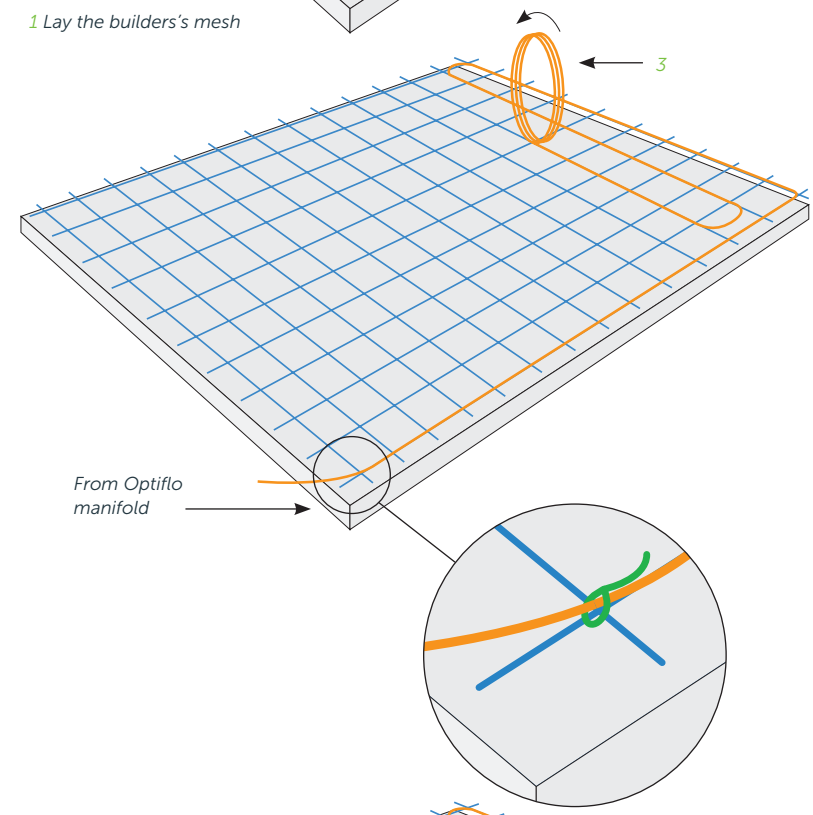


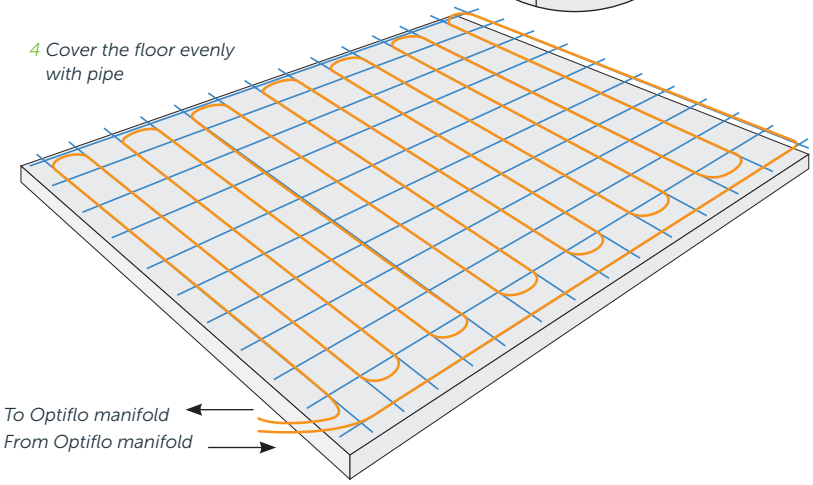
Never kink the Fastflo™ floor heating tube as this will damage the pipe and restrict water flow.

SEQUENCE OF LAYING THE HEATING TUBE IN THE FLOOR



1 Lay the builders's mesh





4 Cover the floor evenly with pipe

1. Lay A142 builders' mesh over the entire floor.
2. Check the pipe layout of the room on the system plans.
3. With one end of the pipe connected to the Optiflo manifold, start unrolling the pipe securing it to the mesh with cable ties as you go. Follow the layout shown on the system plans making sure to use the correct spacing as detailed.
4. Continue working across the floor and back to the Optiflo manifold making sure the floor is fully and evenly covered with pipe.
5. When the correct amount of pipe is laid in the floor, trim and connect to the return manifold as described in the *Installation Manual*.

Note: **There may be more than one coil of pipe specified in a zone.**

6. Pressure test the system as described in the *Installation Manual*.