Fortis Timber Under Floor Heating

Installation Guide

The Multipipe Fortis Timber system is designed for the easy installation of a wet underfloor heating system on any type of timber suspended structure.
Based on P5/P6 grade (moisture resistant) chipboard flooring with pre-grooved channels for 16mm pipe, the Multipipe Fortis Timber panels enable savings in material costs and installation time.
The board is quick and easy to install and uses no extra adhesive substances, or additional layers or structures. The final flooring can (depending on the material) be installed directly over the structural board containing the pipework.

Features

- P5/P6 Moisture grade chipboard
- Pre-routed board to 200mm centres
- Double groove HEP to increase outputs
- Tongue and groove on all four sides

Benefits

- Directly lay Engineered flooring
- High output for lower running system temperatures
- Quick reaction to temperature regulation
- Offset material cost (no need to buy chipboard boards)
- Quick to install – no drying times

Key Parts of Assembly

Fortis Timber 22 mm Board

- Board size 22 x 600 x 1200mm
- Grooved for 16mm pipe
- Pipe spacing 200mm c/c
- Weight 12kg each
- Density: 695kg/m³
- Tongue and groove on all four sides
- Max. distance between the centres of battens according to national regulations
- P5/P6 hybrid moisture resistant chipboard

Fortis Timber 22 mm Turn Board

- Board size 22 x 800 x 600
- Weight 8kg / piece
- Curved groove for pipe turn
- Tongue and groove on two sides
- P5/P6 hybrid moisture resistant chipboard
- Density: 695kg/m³

Fortis Timber Heat Emission Plate

- Plate Size 1000 x 395mm
- 0.5 Gauge Aluminium Plate
- 2 plates per m²

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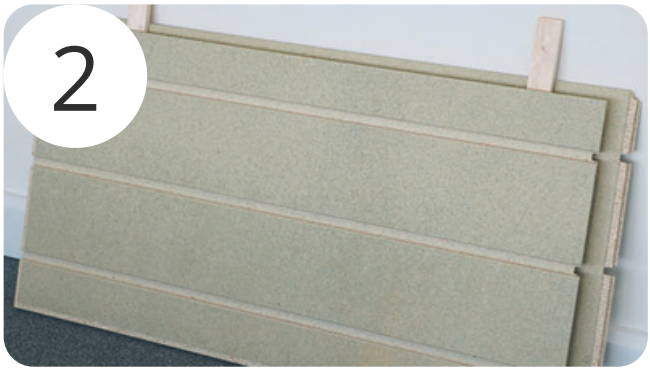
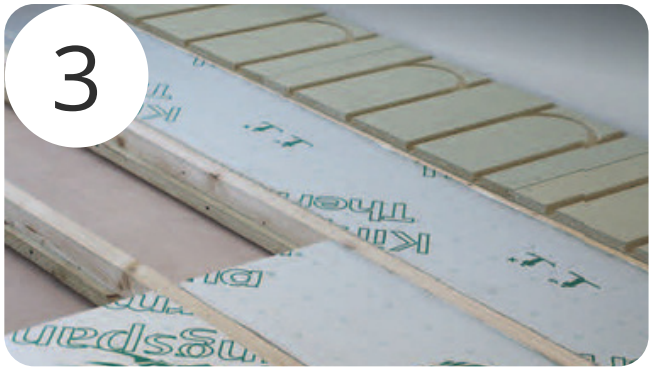
Install Fortis Timber boards so they run against the direction of the joists or battens. The joist or batten centres must be no greater than 600mm apart (minimum of 3-floor support areas per board). Where the joists are further apart, additional support should be installed and spaced accordingly. For further information, call our technical team on 01245 850799 or consult a structural engineer.



Before installation, separate the boards with battens and place them close to the conditions of use. The boards should be left in the room of application for five days before laying. This will acclimatise the moisture content of the Fortis Timber boards should be acclimatised close to the conditions of use.



Start installation in the furthest room from the manifold to enable easy installation of the feed pipes between the rooms and the manifold.
It is highly recommended to run all feed pipes under the heating boards. If the return panels do not sit directly over a joist, a supported structural batten must be installed (See picture)

Always glue the boards at the base to avoid creaking and to each other at the tongue & groove on all four sides. Use an appropriate PVA (water-resistant) wood glue. Carefully apply the glue ensuring a continuous seam of adhesive along the board's entire length. Note: excessive use of glue might lead to gaps between the boards after drying. Before installing boards, check that the joists are even and level. Ensure panels that finish near walls and pillars are correctly supported.

Fortis Timber Panels should then be screwed to the joist or batten with a countersunk screw (50–75mm in length). The screws need to be placed in the centre and edges of the board 350–450mm apart.

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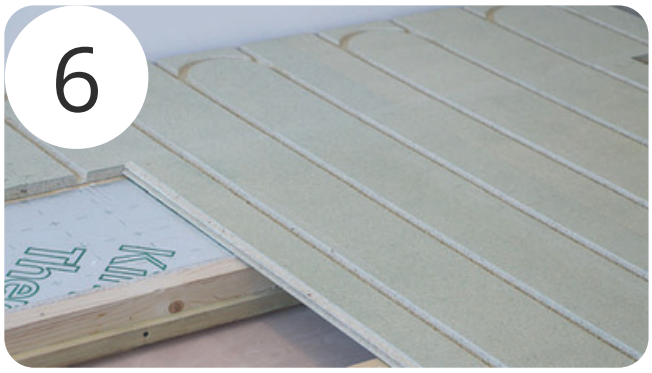
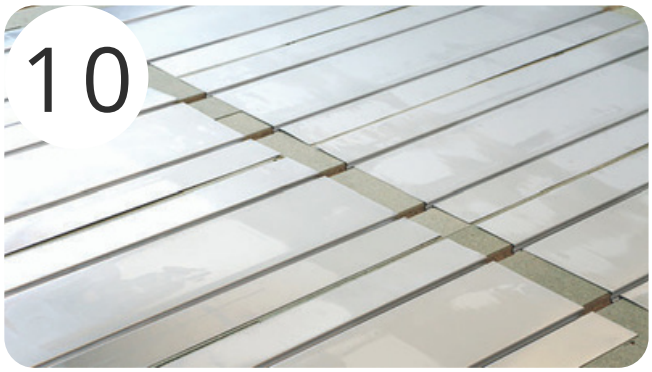


Lay the boards at least 10mm from the walls and between rooms to allow for system movement. Glue and screw the return panels in the same way as the straight boards. When installing the straight boards against the return panel, the tongue & groove should be cut off to allow the main system boards to butt up to the end return panel. There may be a need to trim down the end returns. These cuts should rest on a joist or be supported by battens underneath (see pic 3).

Before installing the Fortis Timber Heat Emission Plate, the floor and the pipe grooves should be cleaned of sawdust and other debris, to ensure no damage to the pipe system

Install the heat transfer plates by pressing them to the Fortis Timber system. Please ensure a minimum of 10mm gap between plates. There is no requirement to bond the heat transfer plates to the base.

Any plates that need to be cut can easily be done by scoring carefully with a knife (remembering to score on the plate's grove). Then place on a straight edge (groove facing down) and firmly hit down to break along the score. Straighten any bent corners of the plates and file any sharp edges near the pipe groove.



70-90% of the floor area should be covered by the Heat Emission plates. Clean the floor once more before the installation of the pipework.

Before laying the pipe in the room drill a minimum 20mm hole in the groove closest to the room entry, this where the pipe will feed in from and do the same for the return.

Fortis Timber Under Floor Heating

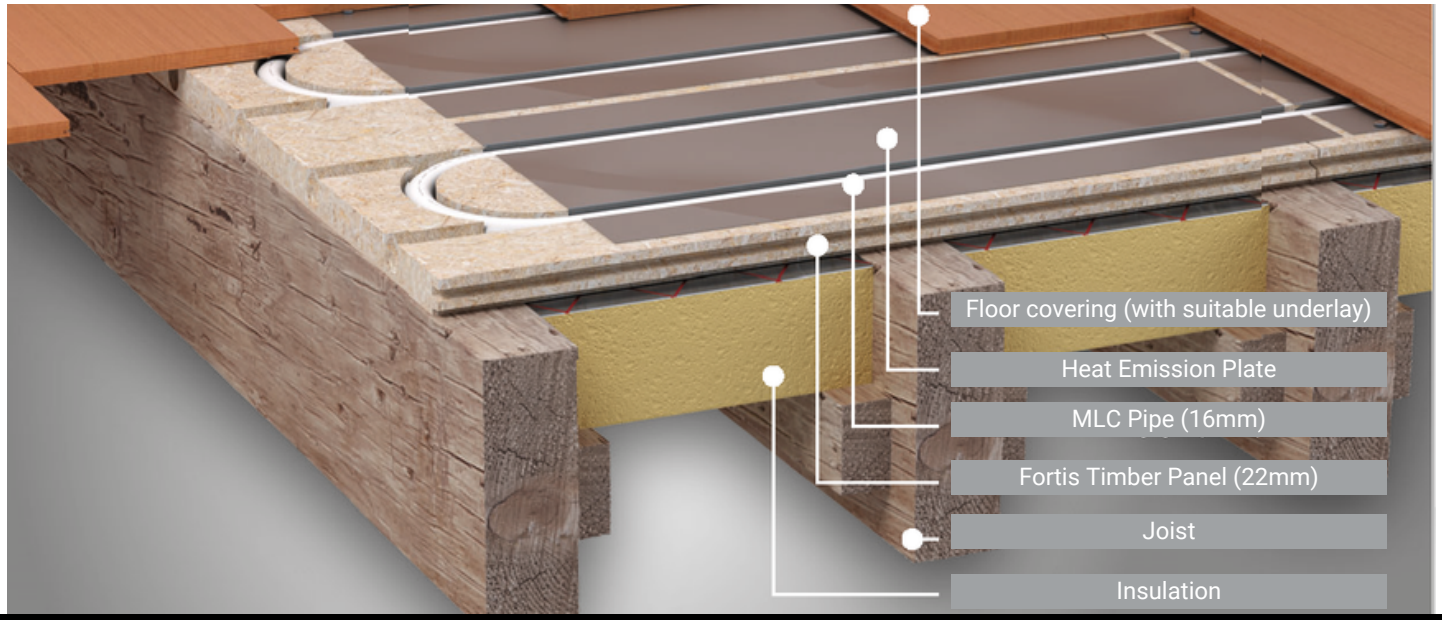
Thread the flow pipe through the board and run enough off your coil to get back to the manifold and we highly recommend connecting this to the flow manifold and stapling back to the wall.

Install the heating pipes into the grooves of the heat transfer plates. Make sure that the pipe is fully pressed into the groove. To ensure the pipe sits down into the groove press in using your foot (best to use a soft bottom shoe and please ensure no sharp objects are embedded in the bottom of your shoe).

Now cut your coil allowing enough to get back to your manifold. Pass the remainder of the loop back through the return hole you made earlier and back to the manifold to make the final connection.

Both engineered, and laminate flooring can be installed directly on the heat transfer plates. We recommend using a low TOG underlay that is approved for underfloor heating. Use a minimum of 8mm engineered wood or laminate.

For all other floor finishes, such as Tiles, Vinyl or Carpet, the floor must be covered with a minimum 10mm cement board. Alternatively, a 6mm WBP plywood can be used. The overlay boards/ plywood must be screwed down at every 150mm centres, avoiding the pipework. *Do not stick down*



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