

INSTALLATION STEPS

PROFLOOR – UNDERFLOOR HEATING PANELS for water circulation heated floor systems

ProFloor underfloor heating chipboard enables the easy installation of water circulation heating systems in wooden ground and intermediate floor structures. The system is based on pre-grooved flooring panels for water circulation systems with 16mm pipes.

ProFloor underfloor heating panels enable savings both in material costs and installation time. The board is quick and easy to install and uses no extra adhesive substances, meaning no extra drying time is required. The final floor can, depending on the material, be installed directly over the structural board containing the pipework. Made from P5/P6 hybrid moisture resistant chipboard.

22mm
pre-grooved chipboard panels

The advantages of ProFloor panels

- Efficient construction
- Quick and easy installation
- Maximum thermal efficiency with reduced heat loss and lower fuel costs
- Ready immediately, no extra adhesive substances or drying time required
- Even heat distribution with consistent and repeatable performance
- Substantial savings in material costs
- The final floor can be installed directly on top of the ProFloor boards
- Quick reaction to temperature regulation

Key parts of assembly

ProFloor 22 mm board

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

ProFloor 22 mm turn board

- Board size 22 x 800 x 600mm
- Weight 8kgs
- Curved groove for pipe turn
- Tongue and groove on two sides
- P5/P6 hybrid moisture resistant chipboard

Heat transfer plate

- Aluminium
- For ProFloor 22mm: size 1000 x 390 x 0.30mm
- Each plate covers 0.4m²

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ProFloor boards should be installed perpendicular onto the joists or battens. The joist or batten centres must be no greater than 400mm. In circumstances where the joists are further apart, additional battening should be installed and spaced accordingly. For spaced boarding a minimum of 22 & 100mm boards should be used. **For further information please call our technical team on 01268 567019 or consult a structural engineer.**



Before installation, the moisture content of the ProFloor boards should be stabilised close to the conditions of use. The boards should be stabilized for 5–7 days, depending on the initial moisture content. The boards should be separated with battens whilst being stabilised.



The boards should always be glued to each other at the tongue and the groove. The boards can also be glued to the base to avoid possible creaking. The glue should be an appropriate PVA wood glue. Application of the glue should be done carefully ensuring that there is a continuous seam of adhesive along the entire length of the tongue and groove. Note however that excessive use of glue might lead to gaps between the boards. Before installing the boards, check that the base is even and straight. Also make sure, that the edges of any boards next to walls and pillars are supported.



ProFloor boards should be screwed to the base with screws suitable for screwing wood. The screws should be countersunk screws 50–75mm in length. The screws are attached to the middle and the edges of the boards 300–450mm apart.

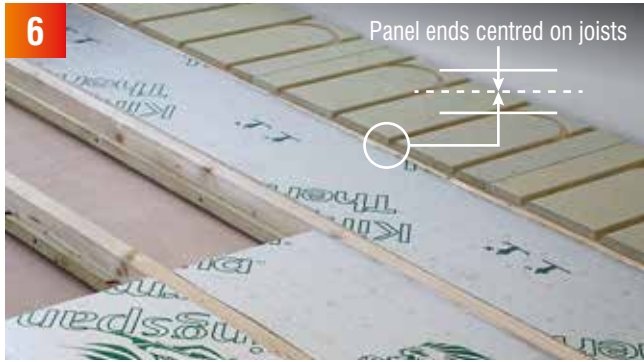
It is recommended to start installation at the furthest place from the water manifold to enable easy installation of the transfer pipes between the piping and the manifold.

You must install the first leg of the underfloor heating pipe before laying the entire chipboard flooring as you will need to start laying the pipe at the furthest point of the room.

If the curve on the end panel does not sit directly over a joist, a noggin or structural support must be installed

Profloor Chipboard 16mm HDPE-AL PEX Pipe 200mm Spacing

| Mixing Valve °C | 50 | | | | | 45 | | | | |
|-------------------------|-------|-------|----------|-----------------|--------|-------|-------|----------|-----------------|--------|
| | Tiles | Vinyl | Laminate | Engineered Wood | Carpet | Tiles | Vinyl | Laminate | Engineered Wood | Carpet |
| Output W/m ² | 113 | 101 | 77 | 67 | 60 | 97 | 86 | 66 | 57 | 51 |
| Floor temp | 27 | 26 | 24 | 23 | 21 | 26 | 25 | 23 | 22 | 21 |



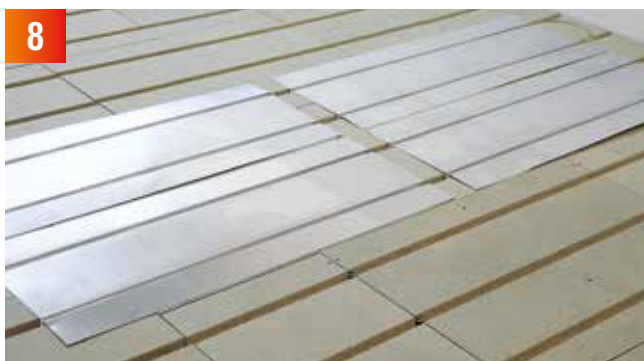
To allow for the wood's natural movement in service, the boards should be laid so, that a gap of at least 10mm is left between the boards and the walls and between the rooms. The end returns should be glued and screwed in the same way as the straight boards.

When installing the straight boards against the end support, the tongue and groove should be cut off so that the straight boards butt up to the end return panel

There may be a need to cut the end returns, these cuts should rest on a joist or be supported by cross beams underneath.



Before installing the heat transfer plates, the floor and the piping grooves should be cleaned of sawdust and other dirt.



Cut the plates to the correct size. Straighten any bent corners of the plates before installation.



70-90% of the floor area should be covered by the heat transfer plates. The floor should be cleaned once more before the installation of the pipework.

The heat transfer plates are installed by pressing them to the straight sections of ProFloor boards. The distance between the heat transfer plates has to be 10–100mm. There is no need to attach the heat transfer plates to the base.



| Mixing Valve °C | 40 | | | | | 35 | | | | |
|-------------------------|-------|-------|----------|-----------------|--------|-------|-------|----------|-----------------|--------|
| | Tiles | Vinyl | Laminate | Engineered Wood | Carpet | Tiles | Vinyl | Laminate | Engineered Wood | Carpet |
| Output W/m ² | 81 | 72 | 55 | 47 | 42 | 68 | 60 | 46 | 39 | 35 |
| Floor temp | 25 | 24 | 22 | 21 | 21 | 23 | 23 | 21 | 21 | 21 |

Note: for Vinyl and Carpet outputs are based on a cement board such as 'No more ply' or 'Hardie' backer boards on top and NOT plywood. For Laminate or Engineered wood a Low Tog underlay Must be used, outputs based on 0.3 TOG Underlay. Carpet and Underlay Tog not exceeding 2.0 TOG

11



The inlets are milled before installation of the boards or directly to the floor surface.

12



The installation of the heating pipe is begun by passing it through the floor to the manifold

13



Install the heating pipes into the grooves of the heat transfer plates. Make sure, that the pipe is fully embedded to the groove to avoid it carrying load under the final floor surface. To ensure the pipe sits flat into the groove, lay the coil of the pipe flat to the floor

14



Both engineered and laminate can be installed directly on the heat transfer plates using a low TOG underlay. A minimum of 8mm engineered or laminate must be used.

15

For other floor finishes, such as Tiles, Vinyl or Carpet, the floor must be covered with a cement board of a minimum 10mm thickness, such as 'No More Ply' or 'Hardie Backer Boards'. Alternatively, a 12mm WBP plywood can be used. The overlay boards/plywood must be glued/screwed down at every 150mm centres.

