



General

These guidelines apply to the installation of Forestia Thermofloor, a special board for use with hydronic floor heating. Forestia Thermofloor is available as Standard P6 and Extra P5/P6.

Forestia Thermofloor Standard P6 is supplied in 22x620x1820 mm format. Forestia Thermofloor Extra P5/P6 is supplied in 25x620x2420 mm format.

Chipboard is affected by changes in humidity. Delivered from the factory, the moisture content of the boards is 5-8%, which corresponds to equilibrium at approx. 30-60% RH (Fig. 1). It is essential that humidity in the building is kept under control by means of ventilation and heating. The boards will move to some extent with variations in humidity (Fig. 1).

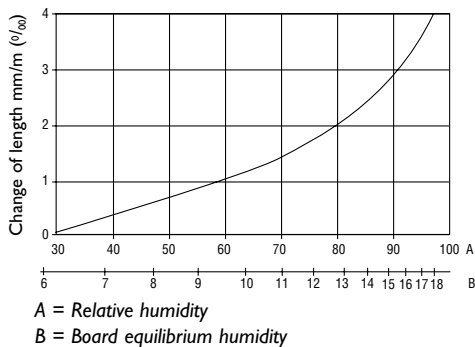


Fig. 1

NOTE:

Due to the grooves, the boards will not have full load capacity until after the covering floor has been laid. For this reason, when the floor is used as a working platform during construction, a full load-distributing surface must be laid over the Thermofloor as a temporary measure. This can be chipboard (or equivalent) with a thickness of at least 10 mm. This board is removed as the covering floor is installed.

Do not place packs of boards or other heavy objects directly on the floor. Instead, lay them on battens across the joists. Later, once the covering floor has been installed, the floor will be able to withstand normal loads.

Transport, storage, handling

The boards must be protected from moisture during transport and storage and must be stored indoors on a stable and level surface.

Applications

Forestia Thermofloor Standard P6 is used as a counterfloor on timber joists in dry rooms and must be installed after the building has achieved closed shell (Climate class 1). Brickwork and plasterwork must be completed before starting to install chipboard. Forestia Thermofloor Extra P5/P6 is used as a platform floor (climate class 2).

Substrate for installation

On solid timber joists or I-beams

The use of I-beams as joists eases running pipes, supply lines, etc. in the floor. I-beams will also shrink significantly less than solid timber beams when the tier of joists has completely dried out. The tier of joists should be dimensioned in accordance with NBI's document 522.351. The tier of joists must be laid at precise c/c intervals, max. c/c 600 mm, and must be accurately levelled. When using tiles, etc., the tier of joist must be laid with c/c intervals of 300 mm.

Installation

Forestia Thermofloor has profiles with tongue and groove on all four sides and three milled grooves on the top of the board for installing heat distribution panels and pipes (Fig. 2).

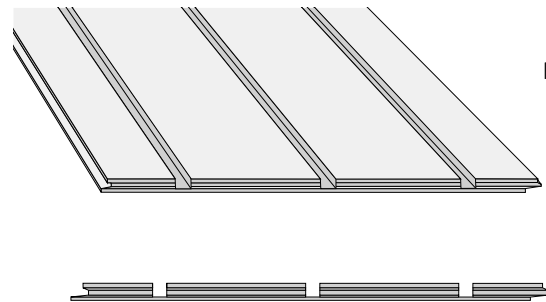


Fig. 2

The milled grooves have a width of 19.8. Forestia Thermofloor Standard P6 has a groove depth of 18.9 mm, while the groove in Forestia Thermofloor Extra P5/P6 is 19.7 mm. The groove is suitable for a 17 mm pipe system.

All free board edges must be supported. It is recommended that supply lines are laid in the tier of joists. If extra grooves for supply lines/grooves at turns need to be milled, extra support must be installed under the boards. Install the boards in bonded sections, lengthwise across the tier of joists. The boards must span at least two sections, and end joints must always be made above the centre line of the beam.

There must be a clearance of at least 10 mm to walls and permanent structures. Floor surfaces of more than 10 m in length must be divided into spans with expansion joints between the spans. The board edges must be supported in the case of recesses of more than 150x150 mm.

The boards must be glued to the beams and fully-glued at the tongue and groove. Recommended adhesive type, chipboard adhesive. If necessary, contact the adhesive manufacturer for the correct type of adhesive. A platform floor made of Forestia Thermofloor (Climate class 2) will be exposed to precipitation during the construction period. Water, frost or ice on the beams must be removed before laying the boards. Chipboard adhesive must be used. It is important that the adhesive can withstand the climatic conditions during installation. The boards must be screwed to the beams. The screws must be countersunk 2-3 mm.

Install Forestia Thermofloor boards in bonded sections (Fig. 3). The boards must be pressed so tightly together that adhesive emerges from the joints. Remove excess adhesive. Fasten the floor boards to all supports with screws, electro-galvanised, size 4.2/55 mm or equivalent.

Use 4 screws at each board end and 4 for each beam the board covers (Fig. 3).

Fig. 3



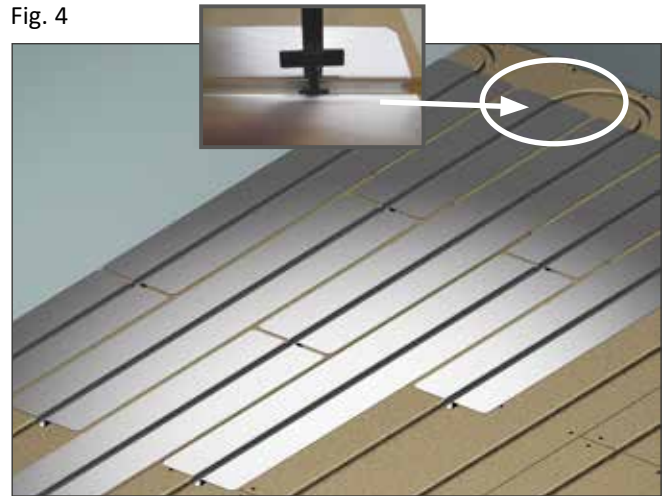
Mill the grooves for the turns with a router on site, after installing the boards. We recommend using Forestia's milling template and a groove milling cutter. Check the groove depth. See separate instructions at www.forestia.no.

Installing heat distribution panels and pipes

Before laying the heat distribution panels/covering floor, check that the floor does not creak. Consider if more screws are needed. Any peaks or raised edges at the joints must be levelled off by grinding. It is important to clean the milled grooves before pressing the heat distribution panels into place.

NOTE: Only lock the heat distribution panel in the groove at the turns. Place the T-shaped end of the milling template in the groove and turn approximately 80 degrees (Fig. 4). Install the water pipes.

Fig. 4



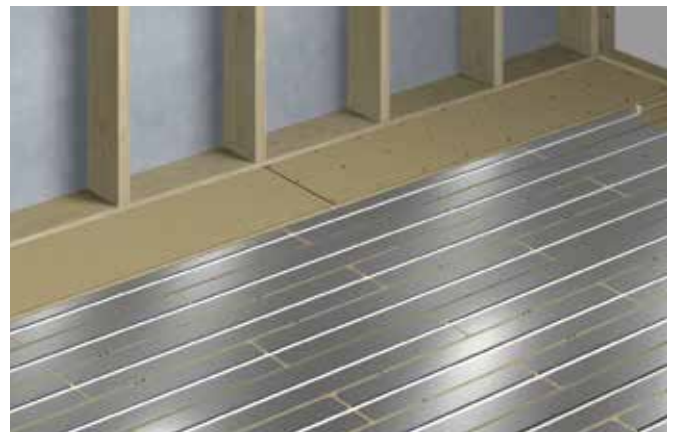
Tip: Forestia Thermo Turn Board 22 mm P6 can be used with Forestia Thermofloor 22 mm P6. See separate installation instructions.

Checking moisture content

Forestia Thermofloor Extra and Standard must not have a moisture content higher than 7% when the covering floor is laid. With Thermofloor Extra, allow time for moisture to dry out.

Installing a covering floor – Forestia Thermofloor Std P6

A load distribution board is needed on Forestia Thermofloor Standard P6. We recommend using 12 mm Forestia Renovation Floor above the heat distribution panels. This must be screwed to the Thermofloor in the gap between each row of heat distribution panels before installing the covering floor (c/c 200 mm). Ask your flooring supplier for recommendations on laying the covering floor.



Top tips

Be particularly meticulous when removing excess glue, waste material etc. in the grooves before laying the heat distribution panels and water pipes.

Remember to seal milled grooves under internal partition walls and outer walls.

Do not use milled grooves to stop ladders etc. from slipping.

The use of I-beams as joists eases running pipes, supply lines etc. in the floor and provides a more rigid floor.

If floor tiles are required – consult your tile supplier.

In case of strong/long-term exposure to moisture in Thermofloor Extra, additional sanding (sandpaper) of the milled grooves is recommended.

Calculate approx. four heat distribution panels + approx. 5.3 lm pipe length for 1 m² of floor.

We recommend that Forestia Thermofloor is installed by a master builder. Companies with professional plumbing and heating expertise should be used to select the energy source and calculate the heating requirements. All work involving connecting pipes and installing technical equipment must be carried out by a certified plumber.

As the manufacturer of Forestia Thermofloor, Forestia is only responsible for the product's defined properties.



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NS-EN 312 P5/P6
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General information

All our products are subject to a thorough quality control process. Nevertheless, faults can occur in individual products. The customer is obliged to check the goods in accordance with our general terms of sale and delivery; this includes checking all products prior to installation. The customer must perform installation and maintenance according to the supplier's installation instructions. The supplier is not responsible for malfunctions, defects, damage, wear and tear, etc. due to faulty installation and/or maintenance. In all cases, our responsibility as a supplier is limited to the purchase price of the part of the item that is defective. We reserve the right to make changes to the specifications without notice.



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