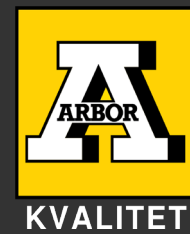


ASSEMBLY INSTRUCTIONS

22/25 mm ARBOR THERMORGULV (Thermofloor)

This applies to the use of Uponor's hydronic heating system with 17 mm pipes on both the wooden joists and using Arbor System Flooring. See separate installation instructions for Arbor System Flooring.



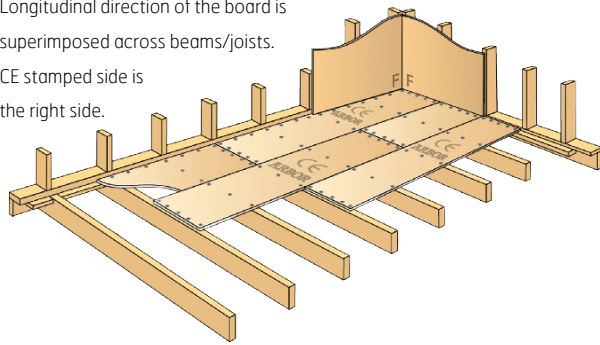
Applies to **CE**- marked **STANDARD** quality and **CE**- marked **MOISTURE RESISTANT** quality

N.B. Always plan the installation of Thermoflooring in cooperation with the plumber for best results.

Start with the board's tongue side towards corner F.

Longitudinal direction of the board is superimposed across beams/joists.

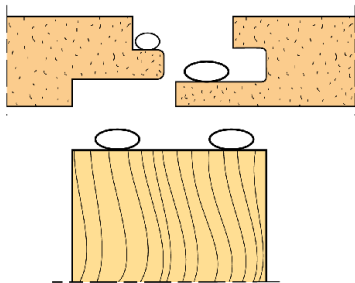
CE stamped side is the right side.



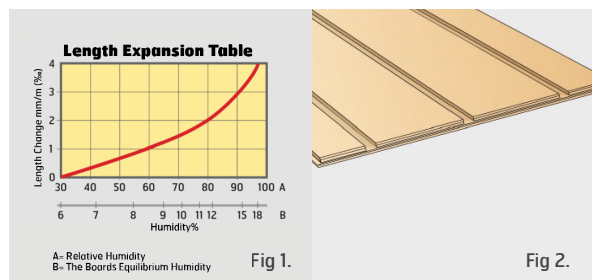
There should be a distance towards walls, about 1 mm per meter floor width/length and minimum 10 mm.

The number of screws on the sketch is the minimum number for wooden bars. See assembly instructions for the number of screws and screw type for Arbor System floor.

○ Glue string



Use a good amount of glue, but immediately wipe away excess glue while it is still wet.



REFERENCES

- SINTEF Building and Infrastructure.
- Norwegian Building Research Institute series No. 522.351 Wooden beam layer. Dimension and execution
- 522.861 Subfloor on wooden beam layer.
- 522.362 Joist floors in new and existing buildings.
- 541.304 laying soft and semi-hard floor coverings.
- 421.132 Moisture in buildings. Theoretical basis.
- 571.046 Chipboard, types and characteristics.
- SINTEF Technical Approval No. 2481 Arbor Flooring Chipboard.
- SINTEF Technical Approval No. 2419 Arbor Floor divider with slotted floor.

FREE-BEARING SUBFLOOR screwed and glued to joists and glued at the joints.

The plates must be fully glued. When gluing, it is important that it is applied enough glue on the tongue so that it covers the groove entirely when the boards are mounted together. This will prevent water from penetrating the joint and cause swelling. Remove excess glue while it's still wet as the boards must be free of glue residue.

GLUE

- In freezing temperatures, use frost glue.
- Platform floors are glued with moisture-resistant glue/adhesive.
- Follow the glue manufacturer's instructions.

Contact the glue manufacturer for the correct glue.

TRACTION PIPES FOR FEED LINES

Draft pipes must be laid for the feed cables to have waterborne heat. Contact the plumber with regard to installing these draft pipes before the floor is mounted.

INSTALLATION OF THE HEAT DISTRIBUTION BOARDS

Thoroughly clean milled tracks for chips, glue residue and other things before the heat distribution boards are pressed into place by the plumber. The boards should be installed with a minimum 10 mm distance between each board. Lock the heat distribution boards closest to the wall in the slot (at each turn) by putting the t-shaped end of the milling cutter in the groove and turn approx. 80 degrees.

N.B. The heat distribution board must not be stapled.

CONTROL OF MOISTURE CONTENT

Our Thermofloors shall have a moisture content not exceeding 7% when the upper floor is mounted. It must be taken into account that the Thermofloor needs time to dry beforehand.

IMPORTANT POINTS

Arbor Thermofloor is a specialized board made for spaces where 17 mm pipes for hydronic underfloor heating from Uponor will be mounted, they have approved this. Chipboards are affected by changes in humidity. Delivered from the factory, the moisture content of the boards is 5-8%, which corresponds to equilibrium at approx. 20-50% RH. It is very important that the building moisture is controlled with the help of ventilating and heating. There might occur some movement to the boards if there is variation in the humidity (see figure 1) The boards must be protected from moisture during transport and storage and must be stored on a leveled substrate. Recesses larger than 15 X 15 cm must be supported.

AREAS OF USE AND ASSEMBLY INSTRUCTIONS

During the construction period, there must be placed a temporary, full-coverage load-distributing plate on the Thermofloor because the boards does not have full-bearing capacity until the upper floor is mounted. This could be a chipboard with a thickness of minimum 10 mm.

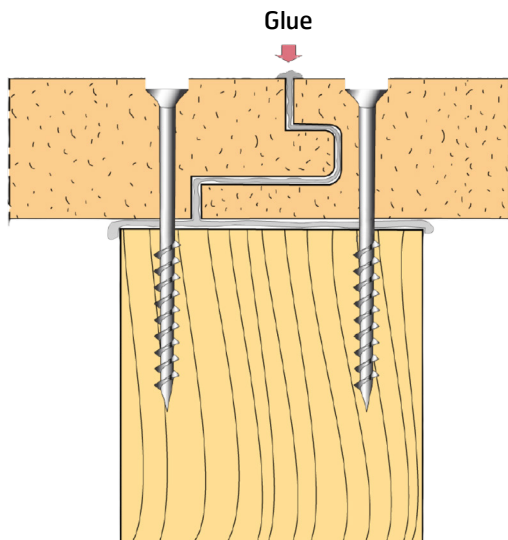
ASSEMBLY INSTRUCTIONS

22/25 mm ARBOR THERMORGULV (Thermofloor)

This applies to the use of Uponor's hydronic heating system with 17 mm pipes on both the wooden joists and using Arbor System Flooring. See separate installation instructions for Arbor System Flooring.



Screws are countersunk 3 mm. The holes must not be filled



Use self drilling chip/board screws with a minimum length of 55 mm. Check that all screws are recessed – retighten if necessary.

TECHNICAL DATA

THICKNESS: Standard: 22 mm
Moisture resistant: 25 mm

FORMAT: 62 x 242 cm

VISIBLE MEASURE: 60 x 240 cm
= 1.44 m² net

JOINTS: Arbor floor profile, tongue and groove 4 corners

WEIGHT: Standard:
One board approx. 19 kg
1 m² approx. 15 kg
Package of 31 boards:
about 580 kg

Moisture resistant:
One board approx. 23.5 kg
1 m² approx. 17 kg
Package of 25 boards:
about 590 kg

Arbor Thermofloor Standard is used as a subfloor on wooden beam layers/ aluminum accessors in dry rooms and must be installed after the building is closed. Masonry and plastering work must be completed before the boards are assembled.

Arbor Thermofloor Moisture Resistant can be used as a platform floor. It is therefore important that the boards are covered in the event of rainfall while they're being mounted, this to avoid swelling during the construction period. When the building is concealed, it is important that the moisture content of the boards decline to under 10% as fast as possible, by heating and ventilating.

Arbor Thermofloor has profiled tongues and grooves on all 4 sides and 3 milled grooves in the boards upper side for heat distribution boards. The milled grooves have a width of 19.8 mm and a depth of 19.0 mm for standard, 22 mm and 19.7 mm for moisture resistant 25 mm. The grooves are adapted to a pipe diameter of 17 mm (see figure 2). Heat distribution boards and water pipes are placed by plumbers before the upper floor is laid.

The Thermofloors are mounted the same way as 22 mm chipboard floor, but must be mounted on beams/joists, see www.arbor.no.

MOUNTING OF UPPER FLOORS ON THERMOFLOOR STANDARD

The upper floor, with a minimum of 9 mm thickness, is laid across the Thermofloor. When using thinner laminate flooring, or if parquet or solid wood flooring is laid lengthwise, the load-distributing board must be used underneath the upper floor. This can be 6.5 mm Rehab drywall or 6 mm Masterboard, which is screwed to the Thermofloor in the opening between each row of heat distribution boards – c/c 20 cm. Before mounting the upper floor, lay parquet substrate, moisture barrier or wool cardboard by recommendation from the supplier.

MOUNTING OF UPPER FLOORS ON THERMOFLOOR MR

On Thermofloor Moisture Resistant, a load-distributing board is required, 6.5 mm Rehab drywall or 6 mm Masterboard on top of heat-distribution boards. It has to be screwed to the Thermofloor in the opening between each row of heat distribution boards – c/c 20 cm, before the upper floor is mounted. Before mounting the upper floor, lay a parquet substrate, moisture barrier or woolen cardboard by recommendation of the flooring supplier. The track and floor surface must be checked if the floor is to be used as a platform floor, and the tracks should be milled clean for any swelling before the heat distribution boards are mounted.

N.B. Always follow Uponors and the upper floor supplier recommendations. The floor should be closed immediately after installing heat distribution boards and pipes. Remember proper cleaning before closing the floor!

The beam layer/joists should be dimensioned in accordance with SINTEF's magazine 522.352. The joists must be leveled and mounted at a distance not exceeding c/c 60 cm. Milling of the turning grooves is carried out at the construction site, after assembling the boards. Use Arbor milling template with a profile mill. Perform the milling in several different batches for perfect results and to avoid damage to the profile mill.



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