

Solid & engineered hardwood floors



Solid timber floor boards



Engineered board

Timber flooring is generally supplied in two forms: solid wood planks available in various widths and types of timber, and high quality engineered board with different hardwood veneer finishes. This information sheet covers both new-build and retrofit underfloor systems supplied by Nu-Heat

Because wood is a natural product it reacts to the surrounding atmosphere and this should be borne in mind when selecting the correct timber flooring for your home. Certain woods are less susceptible to movement than others, with teak and iroko being particularly good, but oak, maple and bamboo are also commonly used.

Engineered board, made up of layers laminated together often with the wood grain running in opposite directions in each layer, is an inherently stable product. Solid timber is also suitable for use with underfloor heating, although narrower boards are recommended as the expansion and contraction is less noticeable when distributed between a greater number of boards. Care should always be taken to make sure conditions on site are suitable for both acclimatising and laying any timber floor.

Hardwood flooring is available in a wide variety of finishes, widths, thicknesses and qualities to suit the style required. Nu-Heat recommends that a maximum board width of 180mm is used with underfloor heating.



Solid timber board



Engineered board – laminated layers

MOISTURE CONTENT

Moisture levels in a building prior to laying a wood floor are critical. Relative humidity in the property should be within the normal range of 35–65%. To avoid excessive movement of the finished timber floor the tradesmen laying it must be satisfied that the sub-floor has dried to the moisture level recommended by the flooring supplier.

Screed

Drying times for any screed are affected by climatic conditions, but the British Standard advises 1mm per day for the first 50mm, and 2mm per day for every additional millimetre.

The only sure way of assessing moisture content is with a hygrometer, but a simple alternative is to tape a 1m² sheet of plastic to the floor. If, after 24 hours, the underside is clearly wet then moisture levels are too high to switch the heating on, and subsequently lay a floor finish.

With cement based screeds (either traditional or pumpable) the floor heating must not be used to accelerate the floor drying process as this causes increased risk of cracking. However with calcium sulphate screeds the heating may be used to accelerate drying after 7 days (always check with the supplier). With LoPro™Max QuickSet self-levelling compound this is reduced to 48 hours.

Walls and ceilings

All walls and ceilings must be dry ready for decoration. The use of dehumidification units can speed up this process.

Solid timber flooring

Timber flooring should be kiln dried to have a moisture content 6 – 9%. It should not be brought onto site until all excess moisture has been removed from the building as this moisture may be adsorbed causing the timber to expand. Follow the flooring supplier's advice on acclimatisation.

Engineered boards

Laminate floors and engineered boards should not be brought onto site until the relative humidity of the building and moisture content of the floor are as recommended by the flooring supplier. Follow the flooring supplier's advice on acclimatisation.

INSTALLATION

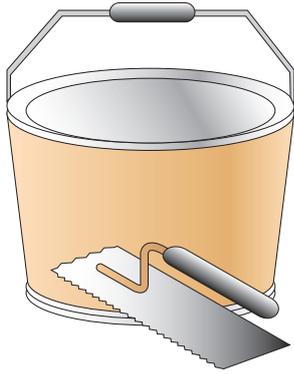
With moisture levels in the building at a suitable level the installation can proceed.

Expansion gap

Always leave an expansion gap around the edge of the room; typically 15mm. This will allow the floor to expand and contract with atmospheric changes and will usually be hidden by skirting.

Fixing

Recommended fixing methods are shown overleaf.



FIXING METHODS FOR SOLID AND ENGINEERED WOOD FLOORS

Floating

Tongue & groove engineered boards can be glued, butt-jointed and free-floated over the sub-floor or glued down.

Adhesive – Sikabond T52® flexible floor adhesive

SikaBond T52® is a single component trowel adhesive designed to bond timber floors to concrete screeds. It is suitable for use with solid or engineered strips, parquet blocks and laminate floorings. Always check with the flooring supplier for their recommended primers and adhesives.

Advantages:

- Saving in labour and material costs,
- Improved heat transfer from the underfloor heating in screed to the timber floor due to complete bonding,
- Vertical sound transfer is reduced,
- Absorbs movement associated with seasonal climatic changes,
- Solvent and moisture free.

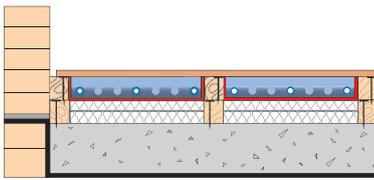
Consumption:

For full surface bonding a one 13kg pail of SikaBond T52® trowel grade adhesive applied at the minimum coverage of 0.5–0.6 kg/m² at room temperature, onto an evenly prepared floor, will cover approximately 21–25m². If the surface is rough, consumption will increase and the bonding properties will be reduced.

Read in conjunction with SikaBond® information sheets.

Battening

Battening is a commonly used alternative. Timber battens are fixed across the floor prior to screeding. When the screed is fully dry the timber can be attached to the battens using a screw/plug or secret-nail fixing. Care must be taken not to damage the floor heating pipe when nailing or screwing into the battens.



WARMING UP THE FLOOR

Warming the underfloor heating system up slowly, particularly for the first time, will help to minimise the risk of shocking the timber floor. Turning the heating mixing valve (or heat pump maximum flow temperature) to 40 °C, and then increasing by 5 °C per day up to the design temperature shown on the A3 *Manifold & Zone Information* sheet, will facilitate this.

For further information contact Nu-Heat sales or customer support