

Engineered Wood Fitting Instructions

General

Check every board carefully before installation for any manufacturing faults. We cannot consider any claims regarding product defects after installation.

Engineered flooring is not suitable for installations in wet rooms such as bathrooms, saunas or in similar rooms where there is a regular flow of water.

Subfloor & Moisture Content

All sub floors must be prepared for installation in accordance with normal sub floor preparation procedures and accepted tolerances within the flooring industry.

Before installing engineered flooring there are the following points to consider:

Moisture test - the test will be carried out using a CM-device and should not exceed the following moisture level:

Cement based concrete 2.5%CM

Anhydrite concrete 0.5%CM

The subfloor should be level and flat with a gap of no more than 3mm showing under a 2L/M straight edge

A maximum subfloor surface temperature of 27°C

Load capacity - The sub floor has to be a closed and self-supporting surface.

Cleanness test - The sub floor has to be in a clean and vacuumed condition

For installation over timber subfloors the moisture content of these must be within $\pm 2\%$ of the product being installed

The following conditions should be fulfilled before, during and after the installation

Wood moisture content 8 – 11%

Room temperature of a minimum of 18°C (64°F)

Relative humidity between 40% and 60%

Walls – 8% maximum

Readings of the above should be recorded prior to installation

Subfloors

Engineered flooring: installed as a floating flooring configuration can be installed on all sub floors, which meet the above-described requirements. Here are some examples:

- all types of concrete sub floors, including hot water radiant sub floor systems.
- particleboard sub floor constructions.
- fibreboard sub floor constructions
- existing flooring surfaces such as PVC, linoleum, natural stone slab, ceramic tiles.

Unsuitable sub floors: textile surfaces, carpets.

Underfloor Heating Guidelines

The subfloor surface temperature may never exceed 27°C. Electrical radiant sub floor heating systems installed as a foil-heating element may be used only if the manufacturer of the heating element can ensure that the subfloor surface temperature is never above 27°C. If the subfloor temperature exceeds 27°C a barrier must be inserted under the floor in order to dissipate the heat and achieve the correct reading. A subfloor thermostat must be installed in order to control this temperature.

Controlling the subfloor temperature should result in a surface wood floor temperature of around 23°C and a room temperature of around 21°C. We do not recommend this temperature is exceeded at any time.

Due to the nature of the product gaps between boards can occur and small hairline cracks may appear in the veneers due to the use of the underfloor heating.

Please note the following rules for the different sub floor types:

Concrete sub floors: if the engineered flooring system is installed over a concrete sub floor, you have to consider that possible residual moisture in the sub floor will permeate to the surface of the sub floor once it is covered with any type of floor covering. Based on the above-mentioned reason it is always necessary to install a 0.2 mm polyethylene film or a liquid DPM as a moisture barrier over concrete sub floors.

Concrete with hot water radiant heating systems: To ensure that radiant heating systems will work properly for many years to come, it is essential to plan and coordinate the different elements of the flooring construction (concrete, radiant heating system, engineered flooring). All existing floor surfaces need to be removed prior to the installation of the new engineered flooring. In addition to the standard sub floor tests it is necessary to provide a certificate that the proper "heating-up and cooling-down phases" have been done. A correct heating-up and cooling-down of the concrete construction will be necessary in every season of the year. The heating-up and cooling-down phase:

- Start of the heating-up phase at the earliest 21 days after the cement-based concrete has been installed, according to the manufacturer for anhydrite concrete but not before 7 days.
- Start the heating-up phase with a flow temperature of 23°C, which has to remain constant for three days.
- Increase the flow temperature daily by 5°C up to the maximum flow temperature.
- Maintain the maximum flow temperature for three days without switching off the heater during the night.
- After three days reduce the flow temperature daily by 10°C until you reach a surface temperature of 18°C (64°F).
- The subfloor surface temperature may never exceed 27°C; it is always necessary to install a 0.2 mm polyethylene film or a liquid DPM as a moisture barrier underneath the underlay.
- During, and three days after the installation of the flooring panels, maintain a surface temperature of 18°C (64°F).
- Three days after the installation you can start to gradually increase the flow temperature from 15°C up to the recommended generic temperature of the property.

The temperature of the flow through to the pipes / electric mats should be set to its minimum setting until you are able to heat the subfloor up to its maximum of 27°C.

The following species are deemed not suitable for use with underfloor heating, Maple, Beech and Kempas.

Recommended Methods of Fixing

Engineered Blocks All Sizes – Adhered to the subfloor

13 / 14 / 15mm Thick Engineered – Floated or Glued up to a width of 240mm. Above 240mm adhere only

18 / 20 / 21mm Thick Engineered – Float / Glued / Secret Nail up to a width of 190. Above 190mm with the only methods we recommend are to secret nail or adhere to the subfloor

Installation Preparation

Before starting the installation the engineered flooring has to be brought into the room where it will be installed or in a room with the same climate condition. The acclimatisation will be carried out as following:

- in sealed unopened boxes
- for a time period of at least 48 hours
- flat laying with at least 50 cm (20") distance to the walls
- at a room temperature of at least 18°C
- at a floor surface temperature of a minimum of 15°C
- at a relative humidity between 40% and 60%

Installation direction: Engineered flooring looks its best when the engineered flooring panels are installed parallel to the light coming in through the windows. The only required installation direction is if you install engineered flooring over hardwood flooring boards. In this case you have to install the engineered flooring at a 90degree angle to the existing hardwood flooring boards.

Planning the first row: after determining the best layout of the flooring and the starting wall, measure the width of the room and divide it by the width of the engineered flooring panels to determine the number of rows and the width of the last row. If the last row is determined to be less than 60mm wide, it should be adjusted by cutting the first row lengthwise.

Planning of expansion gaps: Since engineered flooring is made of organic materials, it is subject to certain movement behaviours (shrinkage/expansion) due to changes in climate conditions. It is necessary to leave gaps of 10mm for the expansion in all parts of the structure i.e. walls, doorframes, stairs, around pipes etc.

Planning of transition mouldings: through the shrinkage and expansion behaviour of engineered flooring you have to install transition mouldings in the following areas:

- at all door throughways
- at all passageways
- single room length and/or with more than 10 m (33 ft)

Installation

Please ensure all wet trades including painting have finished and all moisture levels recorded as previously advised before commencing the installation.

Check all panels for possible damages/defects. Ensure you understand the difference between the tongue and the groove on the panel. Begin installing the first row from the left-hand corner of the room with both tongue sides of the panels pointing towards the wall. Place spacers between the edge of the flooring panels and the

wall to provide the correct space for expansion. Connect the second panel to the first by indirectly tapping using a hammer and push block, thereby joining the boards' headers. Mark the last panel in the first row to the required length (place tongue to tongue) and cut. Start the second row with the off cut from the last panel of the first row. Always make sure the off cut is at least 500 mm long, if not then cut another piece which is greater than 500mm long. Start all subsequent rows with the off cut piece from the previous row. Connect the second row to the first by placing the interlocking end of the new panel at an angle to the previously installed panel and then lower it into a horizontal position to lock then indirectly tapping using a hammer and push block, thereby joining the boards' headers. Ensure all the short ends are staggered at least 500 mm. It is vital to maintain a minimum of 500mm between the ends of boards in the adjacent rows (staggered).

Fitting around pipes

- Measure the position of the pipes and mark it on the panel, consider also the expansion.
- Take measurements from the spacers into account. Drill a hole of 16 mm (5/8") bigger than the pipe diameter expansion provision.
- Saw at a 45 degree angle to the holes.
- Apply glue to the sawn out piece and fit in with the pull bar. Again, do not forget the spacers.

Door jamb installation: if you have a wooden doorjamb, we recommend undercutting the wooden doorjamb according to the thickness of the flooring plus the possible underlay. Install the flooring now underneath the doorjamb – leave the necessary expansion gaps. In the case of completing your installation underneath a doorjamb, we recommend that you remove the locking part of the protruding groove of the pre-installed panel with a utility knife or a pocket plane. The newly laid panel can now be pushed horizontally over the groove of the previously laid panel. Use high quality wood glue on top of the tongue to secure the connection. If you have a doorjamb, which cannot be shortened, e.g. metal doorjamb, we recommend that you cover the expansion gaps with mouldings or fill them with elastic acrylic sealants.

Transition and wall mouldings: after a correct installation of the flooring, install the transition mouldings as well as wall moulding.