



ENGINEERED WOOD FLOORING

FLOATING INSTALLATION

These guidelines are designed to complement the current British Standard BS8201 and any other relevant standards.

NOTE: The final responsibility for the installation lies with the installer.

The installer must be suitably trained and knowledgeable with wood flooring installations!

Engineered wood flooring can be installed as a floating floor, fully bonded, nailed, semi-floated on a suitable adhesive underlay or on a floating system. Each method has its own installation guidelines. This document covers floating and semi-floating installation.

SUBFLOOR

The subfloor must be clean, dry and flat to British Standard tolerance: maximum 3mm gap under a 2m long straight end, at any point across the subfloor.

NOTE: Only Havwoods Pureplank, Europlank and Kahrs, Karelia 14/15mm products, can be installed floating over UFH.

PREPARATION

Cementitious (sand and cement) / Calcium Sulphate (Anhydrite):

The subfloor must be sound with no friable areas, free of laitance and dry. The moisture content of solid sub-floors must be checked in accordance with British Standards Annex A.

This is carried out using a Hygrometer set on top of the screed or by inserting a sleeve into the screed, (the sleeve method is not recommended with underfloor heating to avoid the risk of damage to the pipes).

The moisture reading must be less than 75% Relative Humidity (RH) for floating installation. If the reading is above 75% RH and below 95% RH, we recommend using the **Marldon MXS 140** two- part epoxy damp proof membrane (DPM). The DPM must be applied in accordance with the manufacturer's instructions.

NOTE: Plastic slip membranes are not an effective damp proof membrane and should not be used as a substitute for a liquid applied DPM.

TIMBER

The timber sub-floors must be sound, test for vertical movement which should be less than 5mm and dry, tested using a spike type meter. The moisture content of the subfloor should be less than 14% and within $\pm 2\%$ of the wood floor being installed.



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All suspended wood floors must have suitable through ventilation normally delivered by air bricks in the outside walls. Any wood sub-floor that has a higher moisture level than 14% should be investigated. They must also be free of infestations such as wood-rotting fungi and wood boring insects.

NOTE: We recommend using an Asphalt impregnated paper on wood and solid sub-floors, to reduce/ prevent residual moisture affecting the wood flooring.

Always check the ambient room temperature and humidity which should be maintained at a constant level, between 18°C (64.4°F) and 22°C (71.6°F) with a relative humidity, between 45% - 65% prior to, during and for the whole life of the wood flooring. Try to avoid extremes of low or high temperatures as this will negatively affect the stability of the wood flooring.

As above keep the room temperature constant by using the heating set at minimum 15°C (59°F) or if there are problems with the permanent heating other forms of heating such as convector heaters can be used.

Do not use gas type heaters as these will generate extra moisture in the air.

Infra-red type heaters do not generally warm the fabric of the room or the wood, they tend to only warm the person or item close to the heater.

Low humidity can cause the wood to shrink and high level to cause expansion. Common causes of low humidity are using the heating at too high a temperature, open fires and wood burners. High humidity is commonly caused by poor ventilation.

We recommend using a **Techno Digital Gauge** which can be purchased through Havwoods to monitor the humidity and temperature level that can be easily adjusted by either placing moisture in the room (plants that are watered regularly or receptacles of water) or ventilating the room to reduce high levels of humidity. A re/de-humidifier can also be used to control the atmosphere.

As a general rule rooms / areas should be adequately ventilated to prevent a build of moisture in the atmosphere. Wood will naturally change its size during seasonal changes!

In the summer the humidity is generally at its highest level hence the wood joins should be reasonably tight together.



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During the winter when heating is commonly used the humidity levels are generally lower and will produce small gaps between the joins. This occurrence is not a manufacturing or installation fault!

Care must also be given to rooms that are only heating when in use with the heating switched fully off at other times.

This can cause a build-up, of humidity if the room is closed and not ventilated immediately after usage. The build of humidity / moisture will generally increase the moisture level of the wood flooring. The next time the room used the heating can dry out the moisture in the surface of the wood causing cupping.

Acclimatise the wood flooring for at least 72 hours prior to the installation in the room where the wood is to be fitted. The wood should be stored out of direct sunlight, away from walls and radiators and on battens fully supporting the wood to prevent a build of heat on the bottom boards.

Acclimatising is used to balance the wood flooring with the environment it is going to be used in.

If the temperature of the wood is at an equilibrium balance (the same as the room) and the moisture level of the wood is within $\pm 2\%$ of the wood sub-floor or around 9% for heating other than underfloor heating and around 7% for underfloor heated sub-floors you can assume the wood does not require any further acclimatising.

NOTE: Some manufacturers do not require the wood to be acclimatised and recommend installation immediately after delivery.

INSTALLATION

Floating wood installing should be done using a good quality underlay such as Havwoods Provent product. All of the joins in the underlay should be secured / sealed with a foil or waterproof tape. It is also important to keep the atmosphere constant during and for at least 24 hours after the installation particularly overnight when temperatures can drop causing variations in the atmosphere and may not allow the glue to cure effectively.

Always create an unfilled expansion gap of a minimum 12mm on areas of less than 25 m² and a minimum of 15mm on larger areas.

Areas in excess of 10 linear meters x 8m width of the boards may require extra expansion between the boards and intermediate expansion in the length. Expansion gaps can be covered using a skirting board or beading / Scotia.

In cases where these products cannot be used such as in front of a stone fireplace an alternative is placing a low density foam strip (low density meaning it can easily be crushed between your fingers) leaving it approximately 2mm below the height of the wood floor and then use a colour fill or similar to bridge over the foam.

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This will allow any movement of the wood flooring to push up the filler without restricting the movement.

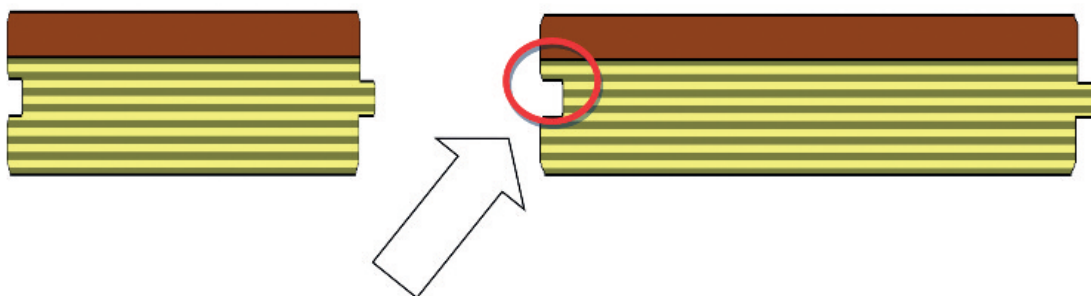
Threshold profiles should be installed in all doorways, arches or narrow sections that lead from one room/area to the next. These thresholds must allow for the required expansion and contraction. Door frames and architraves can be undercut to allow the wood to slide underneath, still allowing for the expansion.

NOTE: Never undercut newel posts as these are structural sections of the stairs.

Uni-click and other types of joints do not require the application of glue to the joins.

T&G boards are fixed together by applying glue (D3 type) in a continuous bead along all grooves. The glue should be applied to the upper corner of the groove to ensure full coverage around the tongue see drawing No 1. To check for full coverage around the tongue remove an occasional board and check the adhesive has spread over the whole of the tongue.

DRAWING NO 1.



Spot gluing leaves the joint weak as does applying the adhesive to the bottom of the groove with the excess adhesive falling downwards and does not wrap fully around the tongue. Always remove excess adhesive from the face of the board immediately with a moist cloth (not wet) or as per adhesive manufacturer's instructions.

We recommend using clamps across the boards to prevent the adhesive pushing the boards apart.

Adhesive is hydraulic and until the pressure of pushing the boards together has dispersed boards tend to open slightly.

Self-adhesive underlay or floating systems do not generally require glue to be used in the joins but this can be done as a belt and braces method. Always follow the underlay manufacturer's instruction for method of installation.

NOTE: click system boards can also be installed on this type of underlay.