

# UPTON

## WOOD FLOORING

### Engineered Flooring

#### Installation over Underfloor Heating

These guidelines are designed to complement the current British Standard BS8201 and any other relevant standards or manufacturer's instructions.

Note: The final responsibility for the installation lies with the installer. The installer must have sufficient expertise and knowledge, (ideally having attended a training course), in order to carry flooring installations.

Solid wood flooring is not recommended for installations over UFH.

Safety must be paramount on every installation. All electrical equipment must be PAT tested and labelled and all cutting tools such as jigsaws, circular and bench saws must have guards fitted and cutting must be carried out on a suitable bench. You must also wear suitable work wear and remove, or make safe, any loose items such as jewellery. Safety is your responsibility!

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

We recommend that Tongue and Grooved (T&G) wood flooring be fully bonded to a suitably prepared sub-floor. We only recommend using Rewmar MS Polymer or Bona adhesives although others are available.

Where a floor is to be laid as a floating floor, a suitable underlay such as Quicktherm should be used and greater attention should be paid to the "level-ness" of the floor. Always check with Upton Wood Flooring to ensure the selected Engineered Wood Flooring is approved for use over UFH, as per our specification below.

Note: We do not recommend the use liquid batten adhesives unless used by experienced personnel as voids can be left under the wood.

We advise using water pipe UFH systems that are set into a screed ( or electric type set into a smoothing compound) under Wood Flooring.

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Electric cable systems must have a minimum of 8mm coverage above the cables using a reinforced smoothing compound. Greater coverage may be required with wet UFH. All screeds must be structurally sound, with any laitance removed.

We do not recommend water systems that are placed on top of screeds or in routed panels, (overlay systems) **unless they have a heat distribution board** fitted above to ensure an even heat distribution to the underside of the engineered board.

**Note:** Some systems can create hot spots (when rugs or other items not on feet are placed directly onto the wood floor) which will negatively affect the stability of the wood flooring.

To ensure the surface of the wood flooring does not exceed 27°C (81°F), we recommend temperature probe(s) be installed within the subfloor build up, to regulate the surface temperature. These should be located in each room / zone. Note: Wall mounted or free-standing thermostats placed >500 mm off the floor surface will allow higher temperatures at floor level.

Prior to delivery, the underfloor heating must be commissioned and have been working for at least two weeks. Our advice is to gradually build up the UFH temperature to maximum for the first 5 days and then allow the heating to cool gradually to the off position. Five days should then be allowed for any moisture with-in the screed to surface and escape.

Note: We recommend carrying out at least one full cycle to ensure any moisture is released.

Once this has been undertaken, switch off the heating and any artificial drying aids four days prior to taking humidity readings. Never take humidity readings (or any moisture tests) with the heating (or other drying aids such as de-humidifiers) on! Moisture content of Cementitious (sand and cement) / Calcium Sulphate (Anhydrite) must be checked in accordance with British Standards Annex A.

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This is carried out using a Hygrometer set on top of the screed (the sleeve method is not recommended with underfloor heating to avoid the risk of damage to the pipes). See the instructions for the hygrometer used for the correct readings. Any air moisture reading must be less than 65% Relative Humidity (RH) for both glue down installation and for floating installation.

Wood sub-floors should be tested using a spike type meter. The moisture content of wood subfloors should be less than 14% and be within  $\pm 2\%$  of the wood floor being installed. All suspended wood or beam and block 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.

Always check the ambient room temperature and humidity which should be maintained at a constant level, ideally 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. Low humidity can cause the wood to shrink and high level can cause expansion. Common causes of low humidity are using the underfloor heating at too high a temperature, open fires and wood burners. High humidity is commonly caused by poor ventilation.

We recommend using an instrument to monitor the humidity and temperature level. Humidity can easily be adjusted by either placing moisture in the room (plants that are watered regularly or receptacles of water) to increase humidity. Ventilating the room will reduce high levels of humidity. A re/de-humidifier can also be used to control the atmosphere.

### **Lastly: Bonded vs Floating**

Bonded floors allow the boards to “move” independently of each other should they need to do so therefore heavy furniture impacts less on any floor movement.

Floated floors, where the boards are glued to each other, do not allow individual boards to move independently so care should be taken in the placing of heavy furniture and due consideration given to allowing any required expansion or contraction.