Floor Finishes

Engineered and Solid Wood Floors for Underfloor Heating

There are generally two types of timber flooring, solid wood which comes in various lengths and widths and different types of timber, and engineered timber with a hardwood timber veneer finishes.

Engineered timber is made up different layers of timber which are glued together with the grain running in different directions, with a real wood veneer as the floor finish. This makes for an inherently stable floor finish and is a perfect partner to underfloor heating.

Solid hardwood timbers are a solid piece of flooring all the way through, however greater care has to be taken when using with UFH.

Moisture Content

Levels of moisture within the building prior to laying the floor needs to be considered before laying any timber flooring. The relative humidity should be within the normal range of 35-65%. The flooring contractor must be satisfied that the sub-floor is dry enough and has moisture levels recommended by the manufacturers.

Screed

Drying times for screed will depend on the climactic conditions at the time, however according to the British Standards the advice is 1mm per day for the first 50mm, and 2mm per day for every additional mm.

The best way to assess moisture content is to use a hygrometer, however another method would be to use a clear plastic sheet 1m² and taped to the floor for 24 hours. If there is no moisture on the underside of the plastic and is clear, then installation of the timber floor can proceed. If moisture is present, then leave to dry for another 24 hours and use the same process again.

When using traditional or pumped screeds the underfloor heating should not be used to accelerate the drying process as this could cause the risk of cracking of the screed. However, if calcium sulphates are used then the underfloor heating may be used to accelerate the drying after 7 days. (Always check with the screed supplier as these types of screeds all have different requirements). If using the Mi-Heat UltraFlo this is reduced to 48 hours.

Solid Timber Floors

All solid hardwood timber flooring needs to be kiln dried to a moisture content of 6-9%. As the wood has to be acclimatized to the building before installation, the building has to be purged of excess moisture, otherwise the wood would absorb this moisture and expand accordingly. All the walls, ceilings and floors must be ready and dry enough to accept decoration, and de-humidifiers cab be used to speed up the process. All instructions from the manufacturers and suppliers should be complied with when considering acclimatisation.

Engineered Boards

Engineered wood flooring should not be brought onto site until the relative humidity of the building and moisture content of the floor is as the flooring manufacturer or supplier recommends. Follow their advice on acclimatization, as they do differ depending on the floor type and size.

Installation

Once the moisture levels are suitable in the building then installation may proceed.

Expansion Gaps

An expansion gap must always be left around the perimeter of the room, usually this would be 10-15mm depending on the size of the room. This gap is required as the floor will expand and contract with atmospheric changes, and will be hidden by the skirting board.

Fixing Methods

Most engineered and solid wood flooring can be glued, butt jointed and free floated over the sub-floor. SilkaBond MS is an excellent adhesive for this purpose, however it is recommended that the manufacturers or flooring suppliers advice on primers and adhesives are taken.

Another less common method is to use timber battens across the floor, and the timber floor can be secret nailed or screwed to the battens. Care must be taken not to damage the underfloor heating pipe when nailing or screwing into the battens.