

## Under Floor Heating Guidelines



The type of system must be waterborne not electric matting, this said the electric under floor heating manufacturers sometimes extend their warranty to cover the flooring therefore please check if this is the case.

### Under floor heating:

When laying a floor where under floor heating has been installed it is important to follow these guidelines:

#### ***Floating Installation Only***

1. The heating has been started up at least 2 weeks before laying the floor to achieve an ambient living environment.
2. Make sure that there is no water leaking from the pipes.,
3. If the subfloor is concrete, make sure the concrete is dry. This means not more than 4% moisture, full depth of screed when the heating is turned off and the floor is cool.
4. The subfloor has to meet all the requirements for under floor heating.
5. Installation method should be as a floating floor and a combination underlay incorporating a DPM must always be used.
6. The surface temperature of the ground (subfloor below the flooring) cannot exceed +27°C.
7. The heating has to be turned off 48 hours before laying the floor.

8. 2 - 3 days after laying the floor, the heating should be turned on gradually, increasing 2-3°C every 24 hours.
9. A minimum temperature of 18 °C must be maintained.

#### **Sub base:**

This flooring can be floated on most types of flooring which is dry and level, e.g. sand and cement screeds, timber floor boards, chipboard, ply etc.

When fitting to a sub base (Screed, ply, chipboard etc) the sub base must conform to BS 8204: Part 1 1987, which states that it must not deviate by more than + or - 3mm under a 3m straight edge in any one direction.

Wooden sub structures must be sound and securely fixed. They must be a minimum of 18mm in depth in order to be supportive. (This applies to Ply or Chipboard also)

**Screed subfloors must be under 4% moisture content**, above this will cause excessive dimensional change in the wood flooring resulting in problems such as delaminating not covered by the guarantee.

On ground floors a surface moisture inhibitor such as Combi Underlay or 1000g Visqueen must be laid with joints over lapped by 6" (150mm) or more and lapped up the wall behind the skirting board. These joints should be taped.

#### **Underlay:**

Engineered flooring, if floated must be installed over a minimum of 2mm foam or poly type underlay incorporating DPM. If an acoustic underlay has been installed first and is suitable according to manufacturer's instructions for flooring to be laid directly on top then a 2mm foam or poly type underlay is not necessary. However, if a 1.5mm cork or bitumen type acoustic barrier is used, then a 2mm foam in particular is recommended to install over same. The foam stops "grinding" between wood flooring and O.S.B., ply, etc. underneath.

Moisture inhibitors (such as 1000g poly) will only assist in protecting the floor from residual moisture when the concrete sub floor is 4% or less. They will not cover up an inherent moisture problem that should be addressed prior to installing the flooring.

#### **Expansion:**

All engineered floors will react to changes in the presence of moisture within the boards. In the winter months when central heating is present, moisture leaves the wood causing the floor to contract. In the summer months when the humidity is higher the wood will expand. This needs to be allowed for during the fitting process. Therefore it is important when installing an engineered floor to leave the proper expansion area around the perimeter and to ensure the flooring is fully acclimatised prior to installation. An expansion gap of 15mm must be in place around the "**FULL**" perimeter of the room. Flooring must "**NOT**" be run through doorways in to other rooms, instead it should be broken in the doorway again allowing 15mm; this gap is covered by a profile that is not fixed to the new flooring.

Please note with a large area (lengths in excess of 10 m) the floor must be divided with an expansion gap provided on both length and width. On completion, this gap is again covered by a profile that is not fixed to the new flooring.

#### **Guidelines Floating Installation:**

On completion of the preceding tasks the following steps should be followed for Installation.

1. A D3 rated PVA glue should be applied to the head of the board (Groove) Along the length of the board (Groove) apply glue every 150-200mm leaving a gap of 80-100mm between each application of glue. This is to allow any excess glue space to fill up, rather than glue being squeezed to surface.

2. Generally you will want the flooring to run the length of the room towards a natural source of light for aesthetic reasons.
3. If fitting over an existing floor, Install at a right angle to floorboards, if this is not possible, fit 6mm plywood so that the direction can be changed. This way the floor will be stiffer and less prone to joints separating.
4. Under cut the bottom of door frames, wardrobes, etc. to allow for the floor board and underlay to fit under it.
5. Open 4 or 5 packs and "shuffle" the boards to ensure an even distribution of colour and character.
6. If you discover a defective piece DO NOT LAY IT. You are the final judge of acceptable quality.
7. Completely Flooring or its dealers will not be responsible for costs associated with installing, finishing and/or replacing of flooring installed with obvious defects.
8. Always stagger the end joints by a minimum of 150mm. Measure and trim the last board to fit, allowing the 15mm expansion gap.
9. Mark a straight line parallel to the chosen wall, allowing a 15mm gap for expansion. It may be necessary to scribe the first row of boards to achieve correct alignment
10. The first board should be laid groove to the wall allowing for expansion of approx. 15mm between the wall and first board.
11. The last board in the first row should be fitted using a puller bar ensuring a 15mm expansion gap at the head of the board.
12. Once the first row of boards is correctly aligned and glued in to place, weight them down while the glue sets. Any surplus glue that may seep out on to the surface of the wood must be removed immediately with a damp cloth.
13. The second row and all following rows should be started with the off cut from the last board on the previous row. It is necessary to ensure that the end joints of adjoining rows are at least offset by 500mm, this leaves the floor stronger and is visually more attractive.
14. Tapping blocks should be used to tap boards together, direct contact of hammer or mallet on the board edge is not recommended.
15. All perimeter gaps should be covered with skirting or Scotia using cover strips at thresholds.
16. Flooring straps can be used to pull the boards together and hold them firm whilst the glue sets.