Installation Guidelines - Engineered Flooring

Hardwood flooring is a natural product, therefore it is rarely perfect. Our engineered flooring has been manufactured in accordance with internationally accepted standards.

Onsite Conditions

Before any installation can begin, the 'Job-Site' must be evaluated as to it's readiness for the fitting of flooring.

There are many things to consider. Here we will outline a few of the basics.

It is advisable to complete a full pre-installation report.

The measurement + recording of sub-floor moisture levels, at various points on the floor, are a necessity.

If you have a concrete screed sub-floor the maximum permitted moisture level at full depth of screed is 3%. Overall humidity within the area to be floored should be between 40%-60%. The temperature within this area, between 18^{o}C-25^{o}C.

Deficiencies whether they be natural or of a manufacturing kind and do not exceed 5% of the total, are permitted.

The fitter assumes **ALL** responsibility for the final selection as to Grade, Colour, Finish and Manufacture.

Please cut out or discard any piece considered suspect.

The manufacturer will decline responsibility for 'Product Failure' caused by or associated with Sub-Surface, Sub-Floor or On-Site environmental deficiencies.

General Instructions for the Installation of Floating Floors

The floor fitter is the most important person. He is the person who finally decides how the finished floor will look overall. Therefore, it is most important he works from several boxes at the same time (four - five boxes recommended). This enables him to decide on a correct colour and grain structure mix, and so achieve the best looking floor possible. Discoloured or imperfect boards must be discarded at the fitter's discretion.

A Note of Caution

Wood is a beautiful product of nature, but due to the intrinsic volatility of most species, it is always a possibility that up to 5% of the product may not be usable for its intended purpose.

General

Changes in moisture levels (humidity) will cause natural expansion and contraction. The result will be seen as small gaps appearing during winter (low, in house humidity levels) or boards tightening in summer (high humidity levels). To help maintain correct humidity levels (45% - 60%) you may consider investing in a humidifier. This machine can also have health benefits for the people who live or work in the same environment as the flooring.

Preparation

Laying and Scoring Conditions

The flooring should be left in the room where it is to be laid for 72 hours to allow it to acclimatize. Always place a plastic sheet 1000 or 1200 gauge material direct on sub-floor, below the underlay. This is most important to avoid moisture infiltration. Overlap all joints by about 300mm and tape securely using a moisture proof tape. Vent all edges of plastic sheet behind skirting and trim as necessary.

A floating floor requires no nailing or gluing to the sub-floor.

The relative air humidity (RH) must be between 45-60%. Temperature must be 18-25o C before, during and after installation. To prevent any adverse effects from damp, the room should be heated and aired for at least a month before lying, in order to achieve the right climatic conditions.

For storage of wooden floors, the same climatic conditions as described above must be present.

Packaging must not be removed until immediately before laying.

Installation

Expansion Gap

Wood is a living material, which therefore requires a gap (known as an expansion gap) of 12-15mm between the floor and the walls. This also applies to door thresholds, pipes, stairs, and up against fireplaces or stone floors.

Gluing

Use good quality wood glue compliant with EN204D3-BS4071. All boards must be glued. Spot gluing is not sufficient; a continuous glue line must be applied inside the groove on the long side and the ends. Remove any access glue with a damp cloth.

Limitations

A floating wooden floor, even despite its laminated construction, can expand and contract significantly, depending on how much the indoor climate changes during the year. This means a floor can only go up to 10mm wide without an additional expansion gap. More complicated floors, for example a corridor which is to be laid in conjunction with rooms on either side, are possible. In such cases, it is recommended that the floor is laid as several independent squares/rectangle, with expansion gaps between. If several floors are to be laid in conjunction with each other without gaps, laminated boards, panels and herringbones can be glued directly onto the sub-floor. This method minimised the movement of a wooden floor and can also be used for pattern lying, when boards are laid in various directions, or to reduce movement in a floor due to other causes.

Types of Sub-Floors

- **Basement or concrete floors:**
  Level out any unevenness. Lay the damp proof barrier, on top of which the underlay is to be fitted. The wooden floor can then be laid floating on top.
- **Old wooden floors:**
  Check that the floor is firm, level and free from rot and does not squeak. Serious unevenness should be planed, sanded or filled. Smaller unevenness can be fitted with rag felt. Lay an intermediate layer of rag felt, and then the new boards should be laid at right angles to the old.
- **Chipboard:**
  As above

Planning

- **Hard or soft floor covering:**
  Wooden floors can be laid directly onto vinyl floors, linoleum, rag felt and carpet with a short, dense pile. Ask your supplier or flooring contractor for advice.
- **Cellular plastic:**
  Boards can be laid on cellular plastic insulation with a density of at least 30kg/MP. The boards can be laid floating on top of layer of rag felt. High point loading, areas of heavy wear etc. can require some reinforcement of the construction. If in doubt, consult your supplier or flooring contractor.
- **Under floor heating:**
  When laying a floor where under floor heating has been installed it is important to follow these guidelines:

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1. The heating has been started up at least 3 weeks before laying the floor, make sure that there is no water leaking and the concrete is dry. This means not more than 3% moisture, full depth of screed.
2. The concrete has to meet all the requirements for under floor heating.
3. The surface temperature of the ground cannot exceed +27oC.
4. The heating has to be turned off 48 hours before laying the floor.
5. 8 days after laying the floor, the heating should be turned on gradually, increasing 2-3^{o}C every 24 hours.

Maintenance

- **In commercial areas:**
  Wear and strain on floors in commercial areas place high demand on surface finish, care of the floor and sub-construction.
- **Protective covering:**
  If building work is to take place after the installation, cover the floor with some form of protective covering, which must allow the wood to breath, and that will not discolour the floor.
- **Cleaning:**
  Use dry cleaning methods, vacuum cleaning and dry mopping. When needed a damp mop or a well-wrung cloth.

Step by Step Fitting Instructions

1. Lay out the first row of boards with their grooved edge against the wall, and work to your right. It is very important that the first board is laid straight.
2. Turn the last board so that the groove end is tight up against the end wall. Using a set-square, mark the board 12-15mm from the end of the last board (must correspond to expansion gap). Cut the board, put it in place and push in a wedge at the short end. When using a hacksaw, cut from the board's upper side. For circular or tenon saws, cut from the underside.
3. If the last board is less than 5cm or the wall is crooked, the first board should be cut. Measure up and mark the cutting position using a guide running along the wall, checking that the board is square.
4. Lay the boards up against the wall. Create the necessary expansion gap by pressing down the wedge between the board and the wall. Glue the groove of the shorter board. Press the board in against the wall and check that it is lying straight. Use the fitting bar to tap the board tight home, and secure with a wedge. Tips: For long rows, it may be difficult to fit in a wedge after the first row. Wait until 4-5 rows have been laid, and then with the help of the fitting bar push away from the wall sufficient to fit in the wedge.
5. Start the next row with the leftover piece from the row before. Any adjacent end-joins should be staggered at least 50cm. All grooved ends must be glued.
6. Use the tapping block when tapping boards together. Never use a leftover piece from a board for this purpose, as this and or hitting the boards' too hard can cause damaged edges.
7. When the final row is to be laid, it will rarely fit exactly. Lay the last row of boards with their tongue side against the wall over the last row already laid. Use a full-width cut off to mark the distance, and slide the cut-off together with a pencil along the wall, marking the line to be cut on the board beneath.
8. The line will include an expansion gap corresponding to the width of the tongue (5mm). If the expansion gap required is 10mm, the line must be 5mm within the marked line (towards the groove). It is recommended that new line be drawn before sawing.
9. Tap in the cut-to-measure board with the help of the fitting bar. If the last row does not leave any space, the tongue must be cut off so that the expansion gap is not lost. Position the wedges and leave them a few hours (e.g. overnight). Finish off with skirting.
10. If the short end meets a pipe: Drill a hole 25mm greater than the diameter of the pipe (provides an expansion gap). Cut the board through the hole.
11. If the long end meets a pipe: Drill a hole as above. Cut off the piece that will be behind the pipe against the wall.
12. Tap the board into place, glue the loose piece and wedge against the wall.
13. Door frames can be removed and raised, but it is easier to saw them. Use a leftover piece of a board to mark the bottom of the frame, and cut with a fine-toothed saw. Slide the board in under the frame. (Do not lock the board between the sub-floor and the frame).