



## GUIDE TO INSTALLING AND FINISHING WOOD FLOORING

### INSTALLATION OF SOLID PLANK FLOORS

#### PLANNING

It is best to install the boards in the same direction as the light falls into the room. In a long narrow room the boards should run down the length of the room. Begin each row from the same end of the room, starting each new row with the pieces left over from the previous row, in any case stagger the joints by at least 50cm.

- The materials to be fitted should be left to acclimatize in opened-ended packs, laid flat in the area of installation for a minimum of 1 week. During this time, they should be kept away from draughts and direct heat sources i.e radiators. The area should be at normal operating temperatures.
- Before installing you need to ensure that the moisture content of the subfloor does not exceed 5% on a concrete subfloor, and 14% on a wooden subfloor. Using a meter ensure that the concrete floor has a moisture content not exceeding 5%.
- Concrete will dry at a rate of approximately 25mm per month, depending upon conditions and time of the year.
- The moisture content of the boards should not exceed 8-9% for engineered products, and 8-10% for solid products.
- Make sure the subfloor is clean, flat and firm, with no bumps, dips or holes of more than 2mm.
- The installer must ensure that the subfloor is suitable. Reference should be made to the manufacturer/supplier. Coating and/or sealers should only be applied if recommended by the manufacturer's/supplier's written instructions.
- A fully functioning d.p.m. (*damp proof membrane*) must be present. If there is any doubt the surface must be pre-treated. Repairs, leveling and damp-proofing can be carried out using the **Earth Wood & Stone** range of stock products. Please refer to our technical department for specifications and guidance.
- A polythene d.p.m such as Visqueen should be laid over the entire area. Prior to installation of 12mm plywood.
- The wood planks are glued or secret nailed to this surface.
- Alternatively battens can be mechanically fixed and the boards secret nailed to the battens. The battens should be a minimum of 25mm by 0mm. Polystyrene or polyurethane foam installation should be laid between battens.
- The nails should be 50mm sheradized to give grip and protection from natural wood acid.
- On joists the planks can be secret nailed. The boards are structural at a minimum of 20mm thickness with a maximum distance between joists of 300mm.
- Additional support maybe desirable either by pre-fixing of 12mm ply or insulation foam set between the joists to which battens are nailed.
- Remember that gaps must be left at every point of contact to allow for expansion, this includes columns, hearths, cupboards, etc., as well as walls, and provision should be made for this prior to installation. A gap of at least 15mm must be left based on 1.5mm per metre.
- Gaps are covered by skirting or scotia/quadrant where skirting cannot be removed. At doorways a T section threshold is used. Expansion gaps can be filled with flexible sealant or cork strip. **Care must be taken to ensure that the wood floor is able to move at any point in the covered area.**
- Depending on installation system and covering choice there will be a consequent change of heights and levels which must be considered at this stage. Where two rooms are linked by a doorway a threshold should be installed allowing 15mm movement or expansion joint sealed with elastomeric sealant. Skirtings, mouldings etc must be free and unbonded to allow movement. A slip of card or similar can be used to produce a gap of 1mm +. The gap between battens for fixing should not exceed 250mm.

## PRE-INSTALLATION CHECKLIST

If EWS is installing your floor, then please ensure the EWS pre-installation checklist sheet, which will be provided by the EWS installer, is completed and signed before work commences.

If you are laying the floor yourself or have arranged for an outside installer to lay your stone, please do the following prior to laying to ensure you are happy with the wood.

- Open boxes and containers of wood, mix and dry-lay a sample area. Coat 1 sample piece of wood to see the final finish, check that you are happy with the colour, grain, quality and size of the wood.

To ensure that you are satisfied with your new floor, we recommend you agree the following with your installer:

- Are the boards to be: floated, bonded, nailed, other?
- Direction the boards are to be laid
- Details of thresholds including: widths, shapes, sizes, positioning
- Details of skirting, e.g. undercut, trimmed, removed and replaced etc
- The final finish e.g. Danish oil, Granglaze, etc

## INSTALLATION METHODS

Solid wood planks can be installed using the following methods:-

### Solid Boards up to 100mm in width – either:

#### 1. Floating

Plank floors can be installed by 'floating' using the following method:-

1. Using the above guidelines polythene/foam underlay is laid onto the surface.
2. The wood is laid unbonded but with the tongue and groove glued using Adesivil D3.
3. Wedges and/or floor cramps are used to ensure tightness of joints.

#### 2. Fixed

Using the above guidelines the solid boards can be fixed using the following methods:-

1. Secret or face nailed to battens/joists/plywood.
2. Bonded to plywood/concrete/screed using Mapei Ultrabond P9901K adhesive, either as gun-applied cartridges or trowel applied full-stick.
3. Over existing floorboards the new boards must be nailed at right angles to the existing direction. If this is not possible because of the requirement to run the new boards the same as the existing (*the long way*), 12mm ply should be screw-fixed first.

### Solid Boards 100mm to 200mm

These boards should be fixed **only**, by nailing or gluing, but the adhesive must be trowel applied, full-stick.

### Solid Boards above 200mm

These boards must be both secret and face nailed.

### Installation of Engineered Systems and Bamboo

1, 2, or 3-strip engineered boards are installed by floating in accordance with the above guidelines. (*All widths of engineered and bamboo boards may be floated*).

Alternatively, the boards can be installed using the Mapei Ultrabond P9901K trowelled full-stick method.

## FINISHING OF SOLID PLANK FLOORS.

Planks are supplied **Unfinished, Finished** or **Treated**. All pre-finished lacquer treated woods have 5-8 coats of acrylic lacquer and require no further treatment.

**It is essential that unfinished wood is coated immediately after installation** for protection and prevention of excessive moisture absorption.

### Unfinished Wood

The planks we sell are untreated ready for final treatment in-situ. Before treating, the surface should be inspected to decide whether light sanding/vacuuming is required. Finishing can be made using:-

#### 1. Hard Wax Oil

An oil/wax treatment giving a sheen finish of very good durability and stain resistance. Subsequent treatment is re-coating or wax polish.

#### 2. Danish Oil

An oiled, very natural matt finish. For medium use areas where a natural appearance is of prime importance.

#### 3. Granglaze Satin

Gives an 'oiled' satin appearance for natural colour depth and finish, but with the increased wear and liquid resistance of a polyurethane coating. It is solvent based and quick drying. Ideal for use in heavy traffic and demanding areas.

#### 4. Aquathane Satin

Very durable satin finish coatings. Give a natural appearance with minimum of colour enhancement for a paler surface. Water based, fast drying.

All wood is pre-sanded and should not need sanding prior to finishing. Apply 3 or 4 top coats of your finishing product. The first coat should be generous, even coated, with no 'puddling'. When dry, the wood should be very lightly sanded by hand to remove any raised grain. The wood is then wiped and re-coated. For extra durability and sheen a fourth coat may be applied.

### Pre-finished Planks

All pre-finished lacquer treated woods have 5-8 coats of acrylic lacquer and require no further treatment.

### Underfloor Heating

Wood flooring can be used in conjunction with under floor heating using the above guidelines.

Additional notes are:-

1. The surface temperature must not exceed 27°C.
  2. Heating/cooling should be gradual.
  3. The temperature should be even across the heated area.
  4. Thermal insulation boards are recommended for use under the heated elements.
- Engineered boards must be used when installed over either wet or electric underfloor heating systems. The adhesive must be installed using a notched trowel to give a full stick.