

Installation Guidelines: Plank Flooring

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Storage and Delivery

01

Storage and Delivery

Arbre Engineered Timber Flooring should be handled and unloaded with care.

Flooring should be stored within the area of installation in a dry space and elevated a minimum 50mm above the sub-floor. Ideally the product should be placed onsite 24-48 hours prior to installation to acclimatise to the site's environmental conditions. Packaging should remain unopened until time of installation to avoid any potential damage to the pre-finished surface.

Installation Area – Atmospheric Conditions

Atmospheric conditions within the internal installation area should resemble as closely as possible, the in-service environment of the completed building or dwelling. Where possible installers should attempt to replicate the atmospheric conditions of the building at time of installation through heating or cooling in conjunction with the appropriate season. An Internal temperature of 21 degree Celsius and relative humidity of 40% to 65% are indicative of a typical in-service environment and are best suited to floor installation.

In accordance with the Building Code of Australia, engineered flooring is not to be installed in wet areas such as bathrooms, toilet and laundry. Kitchen and food preparation areas are not deemed to be wet areas.

Sub-floor Preparation

02

Concrete Subfloor

🌿 Concrete subfloors must have an in-slab relative humidity measurement of no greater than 70%. Test using an in-probe hygrometer to ASTM F2170 (per AS1884-2012 Appendix A).

🌿 If surface metre is used (capacitance tester), any reading higher than 5.5% indicates possible damp concrete and further testing and/or corrective measures may be required.

🌿 The concrete slab must be sufficiently flat, meaning no more than 3mm deviation from a straight edge over a 3m span. Where the slab is not sufficiently flat, remedial works like grinding and adding self-levelling compound may be required.

🌿 The slab surface must be clean with no contamination of dust, dirt, oils, greases, paints, waxes or other coatings. Refer to the adhesive manufactures recommended installation guidelines for more information on surface preparation.

🌿 When installing Arbre Engineered Flooring direct to a concrete slab, a moisture barrier must be used. Bostick Ultraset Single Step2 is recommended for this application. Other adhesives and moisture control barrier may be suitable such as a 200um black plastic membrane taped at 200mm lapped joints laid beneath a minimum 12mm plywood substrate. The plywood is fixed down with 28 masonry pins per sheet with a 6mm gap between sheet edges.

Timber & Sheet (Particleboard, Plywood or OSB) Subfloor

🌿 Timber & sheet sub-floors should have a moisture content between 10-14%. Corrective measures will be required for measurement outside of this:

🌿 For new timber dwellings, protecting the sub-floor from wet weather can assist in controlling moisture content

🌿 Adequate ventilation, drainage and clearance of the ground below the subfloor is important to maintaining a stable moisture content of the timber and sheet subfloor.

🌿 Sub floor ventilation requirements must be met as per the Building Code of Australian BCA.

🌿 The sub-floor must be sufficiently flat, meaning no more than 3mm deviation from a straight edge over a 3m span. Where the surface is not sufficiently flat, remedial works like sanding, packing/buzzing of joists and adding self-levelling compound may be required

🌿 The timber or sheet surface must be clean with no contamination of dust, dirt, oils, greases, paints, waxes or other coatings. Refer to the adhesive manufactures recommended installation guidelines for more information on surface preparation

Existing Timber Flooring

🌿 All subfloors need to be sound and structurally complying with relevant Australian Standards. Any defects or problems need to be corrected prior to installing over an existing timber floor. It is necessary to check the moisture content of the existing flooring as above. The existing timber floor must be sanded flat removing high points. Any existing squeak areas must be re-fix prior to installation.

🌿 Following the adhesives manufacturing instructions, a full trowel glue system is used to install a 4mm plywood underlay at 90 degrees across the existing timber floor. The new engineered flooring over the plywood follows the direction of the existing floor beneath.

Design Considerations and Layout

03

- The layout of your Arbre Engineered Flooring should be designed to enhance the appearance of the floor but also consider material wastage and labour savings. Its recommended the flooring is laid in the direction of the longest dimension in the room/s.
- The flooring will be stronger and more structurally sound if it is installed so that the joints in rows are staggered by a minimum of 300mm. Brick patterns or repeatable patterns are not as visually pleasing as staggered joints and will increase waste. The minimum length of board should not be less than 300mm.
- Plan the layout of the room in advance to installing boards to ensure the last row to be installed is not too narrow. This may require ripping the first row to facilitate this. The last row should not be less than 50mm wide.
- As Arbre features a natural timber lamella, each board is unique and reflects slightly different colour tones and natural features. As a result, it's the responsibility of the installer for the placement/staggering of boards as some planks may blend better to surrounding boards than others.
- Planks should be visually checked at the time of laying for manufacturing imperfection in board shape, damaged or coating imperfections. Whilst this is unlikely due to the strict manufacturing quality controls, any effected boards should be set aside and not laid in order that any concerns can be addressed promptly and not necessitate remedial work to the completed floor.
- A minimum 10mm expansion gap is required around all perimeter walls, around doorway and fixed objects
- Large flooring areas in excess of 20m in length or 10m wide will require a 20mm expansion gap at the perimeter. In such situation, its recommended to ensure plaster sits above finished floor height, so additional expansion gap can be achieved and as a result may eliminate the need for wider skirtings and/or quads.

Direct Adhesive Installation

04

Installation

- Start in a left hand corner of the room and establish a straight line against the starting wall using a stringline
- Upon installation of the first row, the 5G tongue of the plank should be facing inward into the room
- Apply adequate flooring adhesive to the subfloor surface as per the manufacturers recommended instructions paying attention to use the correct notch trowel
- The first flooring plank should be bedded into the adhesive and secured in place by a brad nail through the groove, making sure it sits flush or below the timber surface to not impede the next row to be installed.
- Install the next plank in the row by pressing the board in on a slight angle, ensuring the 5G flexible plastic tongue has clicked/engaged into the groove of the first plank. Complete the first row by repeating this step and cut the last plank to length
- Start the next row with the piece left over from the previous row, ensuring it's a minimum 300mm in length. Ensure the new plank is a minimum 300mm away from the join on the previous row. Whilst holding the plank at a slight angle off the floor, place the tongue of the 5G profile into the groove of the previous row and push forward and pulldown at same time to lock planks into place. Repeat this step to complete each additional row until last row is reached
- To install the final row, the plank should be ripped to finished width. Remove the tongue off the 5G profile with a chisel or knife and apply glue to the end joint. Push plank horizontally together and if needed, place weights on the final row whilst the adhesive cures
- Avoid walking on installed flooring planks until adhesive has cured adequately or as per manufacturers recommendations
- As Arbre has a pre-finished surface, any adhesive on the face of the plank needs to be cleaned off immediately during the laying with the recommended cleaner for the adhesive and cleaning cloths need to be frequently changed to prevent adhesive haze on the board surface
- Once installed the flooring must be protected if remaining building works are still to be completed. If heavy construction traffic is likely then 3mm-4mm MDF sheeting taped at joints could be considered or other floor protection products.

Floating Installation Methods & Underfloor Heating Requirements

05

Installation

🌿 Floating floors installations is possible but is the least preferred method of installation. It gives a hollow sound under foot and is more prone to floor movement not being fixed to the substrate.

🌿 Aspects relating to the in-service environment, site acclimatisation, subfloor conditions, substrate moisture barrier and levelness all need to be considered.

🌿 An underlay is rolled out onto the subfloor with the moisture retarding side facing downwards. Joints in the underlay are butted together and taped to ensure a continuous sealed layer.

🌿 The first row is laid with the tongue facing inwards into the room ensuring a 10mm expansion gap is provided at all wall perimeters. Temporary blocks or wedges can be used to maintain the correct allowance evenly along the wall.

🌿 Floating floors are not to be fixed at any point, installing the flooring planks is the same as the direct stick method explained above.

🌿 Undulating walls may require scribing the flooring to maintain an expansion gap. Expansion gaps must be provided around all fixtures i.e.; pipes, columns and door frames.

🌿 Avoid finishing with narrow boards less than 50mm at the opposite wall. This may be a reason to cut back the first row of boards.

Underfloor Heating Requirements

🌿 Arbre can be used in conjunction with underfloor heating, however special considerations and requirements must be achieved. Please consult Arbre directly for further information.