

## Engineered Wood Flooring Installation Instructions

### General information

1. It is the installation contractor's responsibility to inspect the job site conditions prior to the installation of the flooring. The installation contractor must ensure that the job site's ambient humidity and the sub-floor moisture content are within an acceptable range. All wet work at the job site must be complete and dry (i.e. painting, drywall and ceilings) and concrete sub-floors must be completely cured and flat.
2. Installation contractors will assume all responsibility for the final inspection of all flooring prior to installation of the product, the examination of flooring for defects, colour and finish must be completed prior to installation. If a quality defect exists, the contractor should contact Jordan Andrews immediately. **DO NOT INSTALL ANY DEFECTIVE OR QUESTIONABLE PRODUCT AS** . When calculating the amount of hardwood flooring to order, 10% should be added to the exact square meterage required to ensure for sufficient cutting waste and normal industry grading cull.

### Storage

All of these products must be stored in a dry facility with a properly regulated environment to ensure the correct moisture content of the product is maintained. Cartons and pallets of flooring material should be elevated from storage facility floors by pallets, dry wood beams or racking. Do not store material directly against an exterior wall. These flooring products should not be delivered to the job site until the job site environment is within the guidelines of acceptability for the product for a period of not less than 14 days.

### Job Site Inspection

1. The flooring may be installed ABOVE, ON OR BELOW GRADE. Do not install in "wet" or high humidity areas such as bathroom, laundry room, etc.).
2. All sub-floors that will serve as substrates for these flooring installations must be properly cured, dry and flat to within 3mm over a 3 metre span.
3. All crawl spaces must have a height of 600mm from the ground to the bottom side of the joist. The ground within the crawl space area should be covered with a vapour barrier of 1200-gauge polythene film, with all seams overlapped and taped. The crawl space should be vented along the perimeter, these vents must be positioned to create cross ventilation under the entire floor, all venting must equal a minimum of 1.5% of the total square footage of the installation. Venting must be kept open throughout the year.
4. Air conditioning and heating systems must be in place and operating with a consistent room temperature of 6°C to 28°C and a humidity range of 35% to 55% for a minimum of 14 days prior to the installation of this flooring. This range of temperature and humidity must be maintained throughout occupancy to ensure a proper environment is maintained for the flooring.
5. All sub-floors should be visually inspected for excess moisture prior to installation of the flooring (see general instruction guidelines).
6. As with any flooring installation, all sub-floors must be clean, dry and secure.
7. All exterior grades and elevations must drain away from the structure, with a minimum grade of 150mm in 3 metres. Graded exteriors must extend for a minimum of 3 metres. High grade areas located near the job site may require that additional site drainage be installed.
8. Exterior sprinkler systems must be aimed away from all exterior walls.

### Job Site Acclimatisation

1. Inspect job site for ambient humidity, sub-floor moisture content and the moisture of other wood surfaces that have been at the job site for at least 2 to 3 weeks prior to the installation date.
2. The flooring, still in the boxes, but with all plastic wrapping removed, should be placed at the installation site and allowed to acclimatise for a minimum of 48 hours. It is important that the boxes are kept horizontal. The temperature in the room should be between 15-25°C and the recommended relative humidity in the room should be in the range 45-60%.

### Methods of Installation

These floors may be installed in one of three methods;

1. The flooring may be installed using the staple down method with a low-pressure staple gun designed for flooring installations. Acceptable wood sub-flooring includes most existing solid wood flooring, 15mm plywood, 18mm OSB (P52 type), 18mm particle

board (minimum 40 lb, density), as well as most vinyl tile or non-cushioned resilient floors that have been installed over a wood sub-floor and are securely adhered. The pressure on all staple guns must be adjusted to allow the staple to be fully seated within the stapling groove. At no time should the staple be driven into the flooring far enough that it causes the wood flooring to crimp or for the staple to be counter-sunk below the surface of the tongue. See Figure D.

2. The flooring may also be glued down with a quality low water or low solvent based adhesive system over concrete, wood sub-floors, marble, stone, ceramic, vinyl tile and non-cushioned resilient sheet goods, as well as many other existing hard surface floor coverings. All existing sub-floors must be securely adhered and free of any surface wax or sealers. Do not glue down these floors over perimeter-glued resilient flooring. See adhesive manufacturer's installation recommendations for specific rules and guidelines regarding installation procedures and acceptable sub-floors.
3. The flooring can also be floated on a suitable underlay. The floor must be glued on all four sides using D3 PVA. The PVA should be placed along the topside of the groove

**IMPORTANT LAYOUT NOTE.** Before measuring from the starter wall, do a calculation to determine the width of the last row of planks. If the last row is less than 38mm wide, add that dimension to the width of the plank being installed and divide the sum by two. The resulting dimension plus the width of two planks will determine the distance of the chalk line from the starter wall.

### **Staple Down Installation Instructions**

Set-up and use of pneumatic staplers:

Inspect tools prior to use and become familiar with their operation. Utilising a flooring staple gun (recommended manufacturers include Powernail), set the compressor air pressure (PSI) at a rate that does not exceed manufacturer's recommended pressure setting of 100 PSI, since this can damage wood flooring and injure you and others. Test tools on scrap material first. Parts that engage planks must not have any sharp burrs that can scratch or damage flooring, especially the pre-finished surface, make certain the stapler's adapter seats properly in tongue of flooring and matches the thickness of the products being installed. See manufacturer's instructions for complete set-up and operation.

**Important Note:** Only use manufacturer's recommended staples. The length of staple will depend on the type of sub-floor and must be of sufficient length that at least 112 of its overall length is secured into the sub-floor. The staple must be seated flush within the staple groove but should not extend through sub-floors. Adjust compressor so staples are properly set in Staple Groove (see Figure D). If set improperly, staple will not be positioned correctly and may cause dimpling, peaking, squeaking or cracking of floor.

Begin installation along the longest wall, or an outside wall, which is most likely to be straight and square with the room. At a minimum of three to four points, measure out from this wall the width of 2 planks plus the tongue. For under 60mm wide strip flooring, measure out from the wall the width of 3 boards plus the tongue, snap a chalk line connecting these points, parallel to wall and perpendicular to adjacent walls. Since most walls are not square, you may have to trim the edge of some planks along the walls. See Figure A, B, and C. Using the longest and straightest board, install your first plank with the tongue facing away from the wall, along the chalk line. Drill pilot holes through face of plank (in dark grain), near chalk line side and secure planks with finishing nails.

**NOTE:** Proper alignment is critical. Misaligned starter rows can cause side and end gaps. When you have the starter row completed you can begin the next row.

Engage stapler onto tongue side of plank, using proper adapter (see stapler instructions for proper set-up). Staple 25mm from end of each plank and every 150mm to 200mm along the length of the plank. When certain the first two rows are straight and secure, continue to staple remaining rows using the same staple pattern within 25mm from end of each plank and every 150mm to 200mm.

You will not be able to use the stapler on the last few rows, to fasten final planks in place, either manually nail into tongue or face-nail through surface. To nail into tongue, drill pilot holes at a 45-degree angle to floor and install finishing nails. Alternatively, drill pilot holes in face and use finishing nails or a brad nailer to secure planks.

When you get to the far wall you will likely be required to cut the final row in width to fit against the wall. Do this by laying a plank in position and scribing a line on the plank. Cut the planks for last row and face nail planks into place. Go back to the beginning of the installation and position the final two rows into place and face-nail as needed, Counter sink all face nails and fill the holes with matching wood putty.

Warning: Use of poor quality staplers may result in dimpling or damage to planks.

**NOTE:** Never use rubber mallet or hammer directly on flooring to engage tongue-and-groove. This can damage the flooring and/or finish.

**NOTE:** It is extremely important to blend planks from several cartons to ensure a good balance of colour and graining.

### **Glue Down Installation Instructions**

These floors may be glued down over concrete, ceramic tile, terrazzo, metal, slate, marble, particleboard (with a 40 lb minimum density), OSB (PS2 type) or plywood sub-floors. All concrete must be properly cured, clean, dry and free of surface contaminants like sealers and old adhesive residue. All sub-floors must be structurally flat within industry standards of 3mm variance across 3 metre. All sub-surfaces must have a sound but still "rough" or porous surface in order to ensure a good bond with the adhesive. Old adhesive residues should be removed. A slick or sealed surface should be pre-sanded.

Glue down installation requires that a quality low water or low solvent based adhesive be used, utilizing a trowel and spread rate as specified by the adhesive manufacturer. See adhesive manufacturer's installation instructions for specific rules and guidelines regarding installation procedures and acceptable sub-floors. Any questions regarding the acceptability of a concrete slab or any other type of sub-floor or sub-floor coating for application of an adhesive, is the sole responsibility of the adhesive manufacturer and the flooring contractor.

Begin installation along the longest wall or an outside wall, which is most likely to be straight and square with the room. At a minimum of three to four points, measure out from this wall the width of 2 planks plus the tongue. For under 60mm wide strip flooring, measure out from the wall the width of 3 boards plus the tongue. Snap a chalk line connecting these points parallel to wall and perpendicular to adjacent walls. Since most walls are not square, you may have to trim the edge of some planks along the walls. Prior to installing flooring, we highly recommend that a straightedge be firmly secured along the chalk line as a guide and to prevent the planks from shifting during installation. Alternatively, the first row can be face nailed with finishing nails into a wood sub-floor or spring nailed into a concrete sub-floor,

Spread adhesive from the chalk line straight edge out to approximately the width of 2 planks using a trowel sized according to the adhesive manufacturer's recommendations. Using the longest and straightest board possible, install your first plank with the tongue facing the wall, along the chalk line/straightedge and secure into position.

**NOTE:** Proper alignment is critical. Misaligned starter rows can cause side and end gaps.

When you have the starter row completed, you can begin the next row. When the first two are straight and secure, spread 700mm - 900mm of adhesive across the length of the room. Never spread more adhesive than can be covered in 30 to 45 minutes. Check for a close fit at all end and side joints. Continue to install planks and tap or pull them into place when necessary. After every 5 or 6 rows of flooring installed, use 3M blue tape or equivalent to secure the rows together and prevent movement or gapping. See note below. Remove 3M blue tape after the adhesive has cured.

**NOTE:** Do not leave 3M blue tape on flooring for more than 24 to 36 hours.

**NOTE:** Do not use brown or tan masking tape or duct tape-these products may damage the surface finish of the flooring.

Remember to leave a minimum of 12mm expansion space between the flooring and the perpendicular walls. The precision-engineered tongue-and-groove system creates a very stable floor installation, but you MUST make certain you have a good connection, ensure that the tongue-and-groove is flush and tight and no gaps are present at sides or ends of adjacent planks. See figure E.

**NOTE:** Never use rubber mallet or hammer directly on flooring to engage tongue-and-groove. This can damage the flooring and/or finish.

**NOTE:** It is extremely important to blend planks from several cartons to ensure a good balance of colour and graining.

When you get to the far wall you will likely be required to cut the final row in width to fit against the wall. Do this by laying a plank in position and scribing a line on the plank. Cut the board and install.

Go back to beginning of installation and remove straightedge. Spread adhesive on to exposed sub-floor and position final two rows into place. Cut side of last row to fit, as needed. Remove all expansion spacers at walls and any temporary face nails before applying trim mouldings.

Allow adhesive to cure for about 24 hours before permitting foot traffic or moving furniture onto floor. Carefully peel up blue tape 24 to 36 hours after installation is completed. Do not wait more than 36 hours to remove tape since it gets tackier over time.

#### **Floor protection during construction:**

We recommend that you protect your floor after it's installation if you intend on having additional building work carried out. This protection will help reduce the risk of the floor being scratched or dented by building materials or tools and also reduce the amount of dust and dirt being trodden into the floor. Heavy dust trodden into the floor can become trapped in the finish and be very difficult to remove, occasionally the only solution being to have the floor sanded and finished. These products are also suitable for use with underfloor heating. We recommend using either Florliner FR or Breatha-board to protect your floor.

Florliner is mainly used when light building work is being carried out. For heavy building work we would recommend using the Breatha-board which is more robust and heavy duty. If you have an oiled floor that has been covered for a period of time we would advise applying a coat of maintenance oil to help nourish the wood and replace any moisture lost.

Never use plastic or polyethylene sheeting to cover floor since it will trap moisture that may damage flooring.

Affix the trim and moulding to the walls. Never affix the moulding to the floor itself, as it will prevent the expansion and contraction of the flooring into the expansion space. See Figure E.

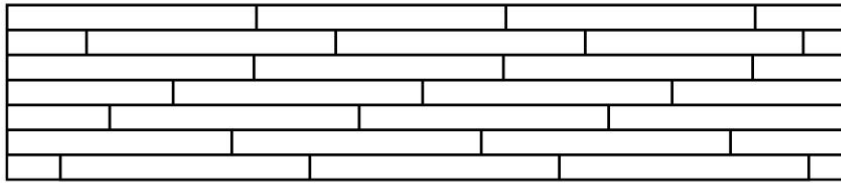
#### **Final Inspection:**

After the floor has been cleaned, inspect it for nicks, scratches, or any other imperfections that need attention. Touch up nicks and scratches with touch-up products. In typical climates, the new floor can accept foot traffic within 24 hours,

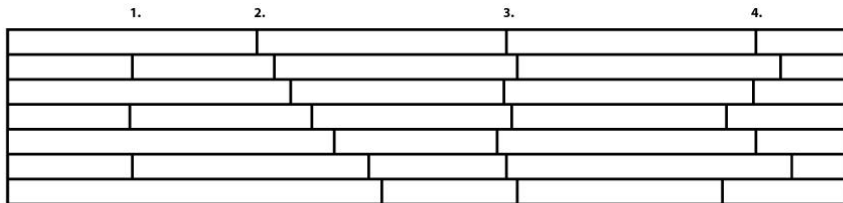
#### **IMPORTANT:**

Retain several leftover planks for possible future repairs.

**A**

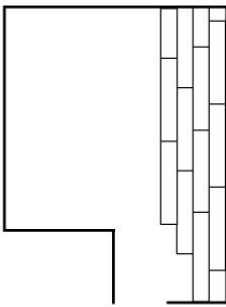


Above, recommended layout of flooring. End joints should be spaced at least the width of the boards apart. e.g. if the board is 190mm wide the end joints should be at least 190mm apart.

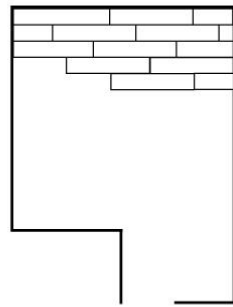


1. End joints evenly spaced, but staggered every other row
2. "Stair-step effect"
3. End joints too close together
4. Very short pieces clustered together

**B**

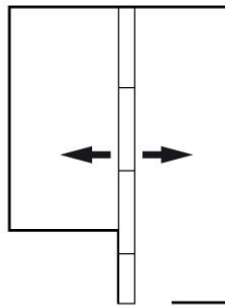


Recommended layout for a long room

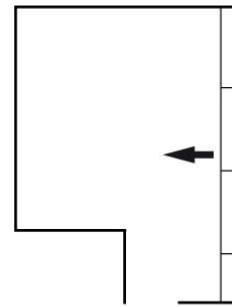


This layout is less pleasing to the eye

**C**



Option center starting line  
Install in both directions



Traditional starting line  
Install in 1 direction

**D**



Correct air pressure



Air pressure too low



Air pressure too high

**E**

