

Installation Instructions

Engineered Timber Tongue & Groove

ATTENTION:

This product is covered for a competitive warranty period. To enjoy the peace of mind that this warranty affords and ensure the optimum performance of your floor, the installation must comply with all instructions relating to preparation, subfloor, installation environment, installation method, and ongoing care and maintenance. Any faults that occur because of failure to comply with the above, will not be covered by the warranty.

A. GENERAL

1. It is highly recommended that all our flooring is installed by a qualified and experienced contractor.
2. It is the installer's responsibility to carry out an inspection of the delivered flooring product prior to installation to ensure the colour, grade, pattern irregularities, structural quality, gloss, and finish are acceptable.
Again, prior to installing, confirm the correct product, as per viewed samples and code numbers, have been delivered to site. If the product is deemed not acceptable, do NOT install it and contact the supplier immediately. If the product is installed it will be considered as acceptable to the customer and Dunlop Flooring will take no further responsibility.
3. Wood flooring is a natural product, which will mature with age, and every board is unique in design. The planks may change shade over time as a reaction to exposure to sunlight and this is perfectly normal. It is recommended that you occasionally relocate rugs and furniture once installed to ensure even shading.
4. Engineered timber products should never be stored outdoors, on a cement floor, in a garage or in any damp conditions. Care should be taken to store the packs flat, in a dry and safe environment. Packs should never be lent against a wall.

5. Although floating floors can be installed in any direction, as a rule, they are usually installed perpendicular to a window. Installing the floor parallel to the longest wall tends to make a room appear larger.
6. The boards in this pack are of random lengths and should be laid randomly across the floor to create the best effect. We recommend opening a few cartons at a time to mix boards from each carton as they are installed.

B. PREPARATION

Acclimatisation

7. The optimal temperature and humidity conditions for Engineered Timber Flooring is 18-28 Degree C and 40-60 % Relative humidity. Under these prevailing conditions the timber boards should be installed directly from the carton. If humidity drops below 40% and rises above 60% for an extended period, either humidify or dehumidify the environment where the floor is to be installed. Maintaining a consistent and correct in home environment is very important so the flooring will not suffer any potential structural damage or dimensional changes such as cupping, shrinkage, checking or gapping. It must also be noted that creaking or squeaking can also be caused by dimensional changes

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to the product caused by poor humidity control in the environment. Australia is a country with diverse climatic conditions (extremes in temperature and humidity). Individual regions and climates need to be considered and adjustments need to be made in regions outside these conditions. Boards to be installed in a high humid environment will need longer gradual acclimatisation.

8. Product moisture content (MC) should be checked by the installer before installation with a moisture meter to be certain that the flooring has not dramatically changed moisture content since it left the supplier warehouse. Timber is supplied between 8 to 10% MC. Installer or contractor is responsible for the products acclimatisation and moisture measurements.
9. Once the product is laid, the internal environment must be maintained to normal living conditions to ensure the expected floor performance. Refer to the Care and Maintenance instructions.

Subfloor

10. All substrates must be structurally sound, flat/even, clean, and dry.
11. Structurally sound: Engineered timber flooring can be installed onto concrete subfloors and existing wood, tile floors provided they are dimensionally stable.
12. Flat/Even: Deviations in any subfloor level must not exceed 3mm under a 3m straight edge. Raised points must be sanded/ground down and depressions filled using a good quality cementitious levelling compound. Please engage a professional installer's services for these matters.

13. Clean: Ensure the subfloor is clean and free from all contaminants and loose material by vacuuming prior to installation. Do not wash subfloor or expose it to water prior to installation.
14. Dry: It is essential that the moisture content of any subfloor is a maximum of 75% relative humidity for concrete subfloors and 10-14% moisture content for wood subfloors. All direct stick subfloors should be checked and logged for moisture content both timber or concrete subfloors. This information must be kept for later reference.
15. All potential sources of moisture (e.g., walls, drains, damp proof courses, plumbing, fridges, washing machines etc.) must be thoroughly checked and must be addressed prior to installation. The final responsibility for determining if the subfloor is dry enough for installation of the flooring lies with the floor covering installer.

Moisture Barriers

16. For a floating installation, we strongly recommend the use of Dunlop Timber underlays with a built-in moisture barrier: Timberrmate, Thermoacoustic Timbercushion, and Aquacoustic.
17. For a glued-down installation, we recommend the use of a topically applied liquid moisture barrier, where a moisture barrier is required. Please follow all manufacturer's instructions in regard to application.

Concrete Subfloor

18. The moisture content of a concrete subfloor must not exceed 75% relative humidity.



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19. Freshly laid concrete bases require adequate curing time to avoid moisture related problems with your floorcovering.
20. Existing concrete subfloor's moisture content must be checked using an industry recognised test method and recorded. Your floor must not be fitted until the moisture content reading complies with the above guidelines.
21. For a successful floating floor installation use a recommended timber underlay with a built-in moisture barrier or a 200-micron black plastic
22. For a glue down installation, please consider the flooring conditions and consult your adhesive manufacturer for recommended adhesives for adhesion between the sub floor and the timber flooring.

Wood, or Tile Subfloor

23. The moisture content of a wood subfloor must not exceed 10-14%.
24. Engineered timber flooring can be fixed directly onto pre-installed wood (particle board, yellowtongue, conventional timber or tile subfloors, provided this subfloor meets all the requirements detailed at the beginning of the Subfloors section. If the subfloor is not flat and even, then you will need to overlay it with structural grade plywood (min 20mm thick). All existing floorcoverings must be securely fixed to the subfloor, to minimise the risk of squeaking. Where poor adhesion between the subfloor and existing boards, planks or tiles exist, secure, if possible, otherwise remove the existing floorcovering completely.
25. On a wood subfloor, your new timber boards should be laid in a direction that is 90 degrees (perpendicular) to the direction of the boards below. If this

is not possible, then plywood sheets (minimum depth 6mm) should be nailed, stapled, or screwed to cover the existing floor, allowing a 10mm perimeter gap (against walls) for expansion. The new floor can then be laid directly onto the plywood sheet.

26. If nails, staples, or screws are being used, care must be taken not to damage pipes or electrical cables beneath.
27. For a glue down installation onto a conventional strip timber or tile subfloor (provided all boards/tiles are securely fixed) you will first have to lay a Masonite, particle board or yellowtongue underlay before the product. Once you have ensured that the subfloor is flat/even and provided the moisture content of the subfloor does not exceed the specified 10-14%, you may glue down a rubber underlay onto the Masonite. We recommend the use of Dunlop Advantage 3. Your timber floor is then glued to the rubber underlay .
28. For a floating installation, follow the same process as above, but in lieu of a rubber underlay, you will have to use a moisture proof underlay We recommend Dunlop Aquacoustic. Your timber floor will be floated on top of this underlay.
29. Heavy objects on a floating floor need to be compartmentalised.

Underfloor heating

30. Due to the speed of sudden temperature changes, which have the potential to negatively affect your floor, it is not recommended to install engineered timber floors over an electrical radiant heating system. Doing so will not be covered by the manufacturer's warranty. The instructions below are for hydronic heating systems for Oak veneers ONLY. Ensure the radiant heat surface



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temperature never exceeds 28°C. Before installing over a newly installed radiant heating system, the system should be run at maximum capacity to remove any residual moisture and turned off 48 hours prior to the installation day. Once the flooring is installed, the heating should be turned on and the temperature increased by approximately 2°C per day until desired temperature is reached. Please note, UNDERFLOOR HEATING IS NOT RECOMMENDED FOR AUSTRALIAN SPECIES (BLACKBUTT, SPOTTED GUM etc.) BECAUSE OF SURFACE CHECKING.

C. INSTALLATION

Floating Installation

31. Ensure you have undertaken all necessary steps as detailed in the Preparation section. Ensure your subfloor is structurally sound, flat/even, clean, and dry as per the Subfloor section.
32. The need for compartmentalisation is based on two factors. One is maximum length and width of an individual area / room and the second is the complexity of the floorplan shape. The more complex the shape, the more compartmentalisation is required. If an area exceeds 15 x 10m or moves into adjoining areas of different dimensions, compartmentalisation is necessary to ensure adequate expansion .
33. For your moisture barrier and underlay needs, we recommend Dunlop Aquacoustic, as this product will provide both a foam underlay and a 200-micron polyethylene vapour barrier .
34. For a floating installation, an expansion gap of 10mm around the entire perimeter of the floor needs to be maintained. This also applies around pipes, pillars,

frames, and fixtures. The 10mm between the first row of boards and the wall should be maintained using spacer wedges regularly along the length of the wall. When measuring for the layout of the floor, remember to factor in this expansion gap. Do not fill these expansion gaps with caulking, silicon or similar products that will restrict the expansion and contraction of the floor. Do not attach skirting boards to the floating timber floor with nails or caulking, silicon, or similar products. Ensure there is a clear visible gap all the time between flooring and skirtings.

35. In areas of high humidity for example Northern QLD, it is recommended to leave extra expansion of min 15mm – 20mm around the perimeter. Each situation should be reviewed on an individual basis and testing conducted by the installer regarding expansion and contraction prior to installation. The standard Dunlop Flooring warranty does not apply to areas where the humidity cannot be controlled in the installed environment (40-60 % relative humidity).
36. Begin your installation against a sound, straight wall, starting in the left corner and working right. It may be necessary to scribe the first row of boards to achieve correct alignment. Always begin the installation with the groove side of the plank facing the wall. Be mindful of the 10mm expansion gap during this step.
37. Undercut door frame so that the planks can be installed underneath, being mindful of the requirement for a 10mm gap. Ensure that any underlay being used in the installation is underneath the product when you perform this step, so that cut is at the correct height.
38. At no point should the flooring be in contact laterally with any solid structure. The flooring must be allowed to move



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independently, or damage will occur, such as cupping, peaking, gapping, or squeaking.

39. Begin the next row with the piece left over from the previous row (not from the first row of shaped boards). The end joins of the joining boards should be staggered or stepped by at least 500mm (avoid installing according to the brick laying method).
40. Use only a PVA D3 cross linked wood adhesive with a pointed tubular applicator to apply the glue to the top inside edge of the groove of the board (including the groove of the head join) in a 5mm continuous line. Never apply the adhesive in a broken line as this can cause your floorboards to squeak. Any excess of adhesive should be immediately wiped off with a damp cloth and then a dry cloth. (See Glue Down Instructions).
41. When installing the timber, use a hammer and tapping block to tap the joins together. Take great care not to use more force than is required to help the boards join as this can damage the board edge and compromise the installation or appearance of your floor.
42. The last row of boards should be sawn to a suitable width of no less than 150mm.
43. Apply the adhesive in the groove and lever the boards into place with the tightening bar and wedges. Using a protective piece between the wall and the tool. Be mindful of the 10mm expansion gap when installing the last row of boards.

Instructions for Gluing Joins

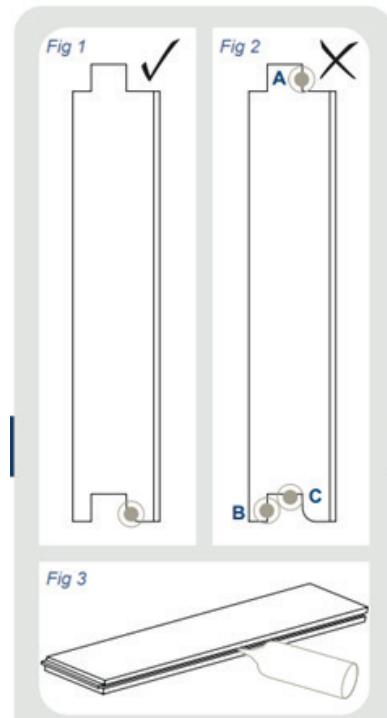


Figure 1

Correct Glue Placement: (Figure 1) Use only the approved adhesive (cross linked PVA Adhesive) Do not use ordinary PVA. This is the correct place to apply the adhesive glue to gain a strong, tight & secure bond between the tongue & groove

Incorrect Glue Placement: (Figure 2) (A) Do not apply glue to the tongue. This will cause glue to be squeezed out of the join onto the surface of the board & make your installation messy, it will not give a strong tight secure bond. (B) Most of the adhesive will be squeezed out under the join & will not be of any use at all resulting in a poor join & virtually no bond between the tongue and groove (C) Too much adhesive causes poor joins as the excess glue will not allow the tongue to fit into the groove properly.

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44. Correct Glue Placement Technique:
(Figure 3) Hold the board with the bottom of the board facing upwards, apply a continuous bead of glue to the top edge of the groove, along the length & end of the board.

Glue Down Installation

45. Ensure you have undertaken all necessary steps as detailed in the Preparation section. Ensure your subfloor is structurally sound, flat/even, clean, and dry as detailed in the Subfloor section. For a glue down installation on a concrete subfloor or an existing wood, or tile subfloor, you will need to apply a DPM (Damp Proof Membrane) or a MPU (Moisture Proof Barrier) (see Moisture Barriers section). Please note that if you opt for a MPU, you will need to glue it to the subfloor, and your timber will in turn be glued to your MPU. Should an underlay be required for acoustic reasons or improved comfort underfoot, we recommend Dunlop Advantage 3 and Technics 5.

46. The Dunlop Advantage 3 and Technics 5 should be laid at 90 degrees to the direction of the timber with the joins taped. PLEASE CONSULT YOUR ADHESIVE MANUFACTURER AND UNDERLAY MANUFACTURER FOR RECOMMENDED ADHESIVES FOR ADHESION TO THE SUB FLOOR AND FOR THE TIMBER FLOORING.

47. The need for compartmentalisation is based on two factors. One is maximum length and width of an individual area / room and the second is the complexity of the floorplan shape. The more complex the shape, the more

compartmentalisation is required. When laying the floor in several adjoining rooms or in a space more than 20 lineal meters in length, and 15 lineal meters in width, expansion joints must be installed.

48. An expansion gap of 10mm around the perimeter and under skirting boards is to be maintained. This also applies around pipes, pillars, frames, and fixtures. Undercut door frame so that the planks can be installed underneath, being mindful of the requirement for a 10mm gap. Ensure that any underlay being used in the installation is underneath the product when you perform this step, so that cut is at the correct height.

49. The 10mm between the first row of boards and the wall should be maintained using spacer wedges regularly along the length of the wall. When measuring the layout of the floor, remember to factor in this expansion gap.

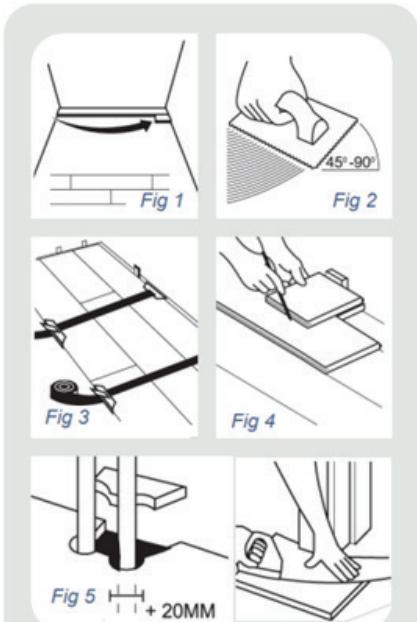
50. Begin your installation against a sound, straight wall, starting in the left corner and working right. It may be necessary to scribe the first row of boards to achieve correct alignment. Always begin the installation with the groove side of the plank facing the wall. (Figure 1)

51. With this system use a one component, solvent-free, moisture curing polyurethane timber flooring adhesive for gluing your timber boards to the subfloor. When applying adhesive, you need to comply with all instructions provided by the adhesive manufacturer. (Figure 2)



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Tools Required: (not supplied)

knee pads, goggles, square, tape measure, pencil, saw, utility knife, one component solvent-free moisture curing polyurethane timber flooring adhesive, PVA wood glue, fitting straps.

52. Once the first row of boards is correctly aligned and glued in place, weigh them down while the glue sets (or use wedges against the wall). Any surplus glue that may seep out onto the surface of the wood must be removed immediately with a damp cloth. The glue should not be applied in the groove or the tongue of the flooring.
53. Continue to fit the boards from left to the right. Always stagger the end joins by a minimum of 150mm and a maximum of 300mm. Measure and trim the last board to fit. Where possible, use cut offs to start the next row.
54. Floor straps can be used to pull boards together and hold them in place while the glue dries. (Figure 3)

55. For the last row of boards, you can use the sandwich technique to measure the width of board required, ensuring that the row is not less than 100mm in width. Place the board for the last row on top of the previous row. Using a full width off-cut board and spacer wedges placed up against the wall, scribe the last row to mark the correct cutting line. (Figure 4)
56. It is recommended that you use felt pads under chairs and furniture, and plastic mats under office style chairs with wheels. When shifting furniture, never drag heavy items across the surface of your floor.

D. FINISHING OFF

57. Once installation is complete, any spacing wedges used can be removed. If a plastic moisture barrier has been used, the edges that have been turned up the wall can now be cut off; it is recommended to leave approximately 20mm extra to put behind the scotia or skirting to prevent moisture penetrating the material through the wall.
58. The expansion gap around the perimeter of the floor can be covered by re-fitting the skirting boards, either by nailing, screwing, or gluing directly to the perimeter walls. Never fix them directly to the installed floor. If the skirting boards were not removed for installation, you can cover the expansion gap using moulding trims that attach to the skirting with glue or panel pins. At doorways, a door threshold strip should be used to protect the edges of the floor and provide a decorative transition from one floor type to another.

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E. STAIR NOSINGS

59. Flooring on stairs must be directly stuck with the appropriate polyurethane / MS adhesive to the existing tread & riser, with matching stair nosing to be fitted on the front edge of each step. Also please make sure that the stair nosing meets the slip test guidelines for each state in Australia.

F. POST INSTALLATION

60. After installation, if other trades are still to complete their work, a breathable protective covering should be installed over the flooring. Non-permeable product should not be used as this will damage the product due to an increase in moisture. The flooring must be clean and clear of any debris prior to the fitting of protection. We do not recommend adhesive tape is applied to any of our flooring products.

