

# silkwood

engineered hardwood flooring

An easy-to-follow installation  
guide for Silkwood engineered  
hardwood flooring

**installation guide**

## Disclaimer

The following can only be used as a guide and the installer should apply all Australian Standard and best practices when installing. This should include the relevant safety protocols required. It is vital that the installer collect and fully understand this data and not rely upon this guide as the sole means of direction. If there are any problems before or during the laying of a Silkwood floor, stop and do not continue laying. Contact Boral Timber Flooring immediately on 1800 818 317 for further advice.

## Product description

Silkwood is a hardwood engineered flooring system that is fast and easy to install. It can be installed as a floating floor or alternatively can be glued directly to the subfloor. Floating floors are glued together by a tongue and groove connection and laid over a Boral Silkwood Underlay.

An expansion gap is left around the perimeter of the floor and is covered by a skirting board or moulding.

Direct stick installation involves fully bonding Silkwood flooring to an existing subfloor. Direct stick installations can help minimise expansion and contraction in locations that experience extended periods of high or low humidity.

Silkwood flooring does not require acclimatisation. The flooring should be brought to site when required for laying, after the area where the flooring is to be installed is at lock up stage, and after the completion of all wet trades.

## Suitable subfloors

Silkwood is designed for any subfloor that is structurally sound, level, clean and dry such as

- Concrete slab
- Sheet flooring such as plywood or particleboard
- Existing strip timber floors

**Note:** For installation over heated subfloors, please contact Boral Timber Flooring for additional instructions.

## Tools for the job

- A saw or jigsaw
- Wedges
- Square rule
- Tapping block
- Pull tool
- Hammer
- Floor levelling compound (if required)
- Silkwood PVA glue
- Silkwood Foam Underlay and moisture barrier

## Extra tools required for glue down installation

- Polyurethane flooring adhesive
- Appropriate moisture seal (if required)
- Notched trowel as per glue manufacturer's instructions
- Direct stick acoustic underlay (if required)

## Accessories

- Silkwood Standard underlay
- Boral RV-4 acoustically rated polyurethane underlay
- Silkwood Ultra underlay (reduces reflective sound)
- Silkwood (Cross Linked D3) PVA glue
- Prefinished, species-matched hardwood scotias
- Aluminium trims available in silver, bronze and champagne

## Remember

With the abundance of various different primers, levelling compounds, sealers and adhesives on the market, the following points should be considered and applied.

- Always follow the manufacturer's guide lines.
- Always use compatible products. Manufacturers often have "systems" they recommend that guarantee compatibility.
- Whilst Silkwood is fast and efficient to install, professional installation is recommended.

Before installing a timber floor, ensure the site conditions are suitable. The project must reach near completion before installation to avoid damaging the newly fitted timber floor from heavy trade traffic.

## **Pre-start site inspection**

Many of the problems encountered with timber flooring can be related back to the critical area of site assessment.

### **Properties of timber**

Timber is hygroscopic - that means that it is capable of easily absorbing and expelling moisture in response to local conditions. As timber absorbs moisture it expands and as it expels moisture it contracts. As such, factors such as relative humidity (atmospheric moisture), moisture ingress (subfloor or other), direct sunlight, air conditioning and lack of adequate ventilation can cause timber to expand or contract. Therefore, care must be taken to correctly assess the suitability of the site prior to the installation of timber flooring, as well as to maintain a suitable environment where the timber floor has been installed.

### **Inspection of the site, the subfloor surface and preparation**

1. Conduct a visual inspection for signs of moisture possibly resulting from pipe leaks, window seal leaks, bathroom/laundry overflow problems, ceilings leaks or rising damp. Any signs of moisture ingress must be remedied prior to installation.
2. The subfloor must be dry and free of contaminants including but not limited to oil, paint, grease, dust, metal shavings, saw dust.
3. The subfloor is to be fully scraped with a wide blade scraper to remove all cement render spoil, gyprock setting residues and mortar excess at the base of walls.
4. The subfloor must be tested for flatness. Deformations to the surface greater than 3mm over 3m are to be filled with a self levelling compound following manufacturers' recommendations. Deviations in the subfloor greater than 3mm over 3m should be ground smooth to conform to the aforementioned specification for flatness.
5. Timber substrates such as particleboard, plywood or existing timber floors should be sanded to create a clean flat surface. Plywood or particleboard should be a minimum of 5 ply or 12mm. For further information on installing a plywood subfloor ask for a Boral Plywood Underply brochure at a reseller.
6. A concrete subfloor should be moisture tested in accordance with AS1884-1985 to ensure the concrete subfloor has a moisture content (MC) of less than 5.5%. If MC is greater than 5.5%, a moisture seal must be applied as per the manufacturer's recommendations.
7. If the installation is to be a direct stick job, the selected adhesive should be applied to various areas on the subfloor prior to commencing installation, to confirm that suitable adhesion can be achieved.

## **Installation**

### **Expansion gaps**

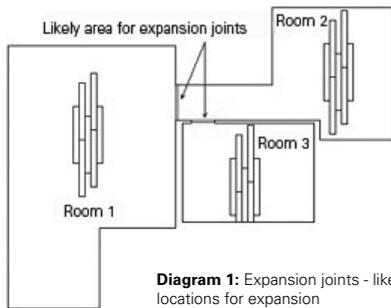
Expansion gaps and perimeter fixings should be planned before commencing the job. Expansion gaps are a requirement of timber flooring.

Due to the hygroscopic nature of timber the flooring will expand and contract with changes in moisture content. The allowance of expansion gaps at the perimeter walls and around obstructions will allow the floor to move as required. If sufficient expansion gaps are not allowed for, buckling and deformation of the flooring can result.

Boral Timber Flooring recommends a minimum expansion gap at all perimeter walls and obstructions of 14mm. In areas of high humidity and for floors exceeding 8m in width it may be necessary to increase the size of the expansion gaps, and/or include expansion joints within the flooring in order to increase the total expansion allowance for the floor.

Expansion gaps can be readily increased by under cutting plasterboard walls or through the use of thicker skirtings or beading. The greater the expansion allowed while installing, the better.

Expansion joints are best placed at doorways or in line with internal walls. Expansion joints help to break large floors into smaller sections thereby maximising total expansion gaps (refer Diagram 1).



**Diagram 1:** Expansion joints - likely locations for expansion

## Acoustic systems

There are many varied acoustic systems available on the market today. Boral Timber Flooring supplies a range of acoustic underlays that conform to our warranty and installation guidelines.

Alternatively, Boral Timber Flooring can work closely with all parties during the specification process to ensure satisfactory performance is achieved whilst not jeopardising any warranty or installation guidelines.

## Moisture barrier

All subfloors require a moisture barrier. Boral Silkwood Underlay is supplied with a pre-attached moisture barrier.

## Installation - floating floor method

The installation of Boral Silkwood flooring must be carried out as per our installation and warranty guidelines. Failure to do so will void the warranty.

It is also important to note that the most common cause of complaint with timber flooring installations is an uneven subfloor and damage or distortion due to the lack of adequate expansion gaps. Particular care must be taken in preparation and planning to address these issues prior to installation so that the timber flooring is allowed to perform as designed.

**Note:** It is the installer's responsibility to check all material for faults or defects prior to installation. Material which is deemed to be faulty by a Boral representative will be replaced free of charge. Costs associated with the replacement of any faulty boards after they have been installed will not be accepted by Boral Timber Flooring.

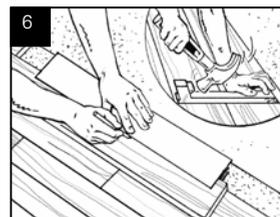
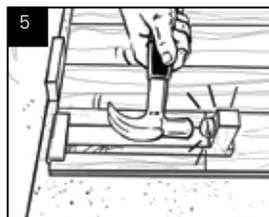
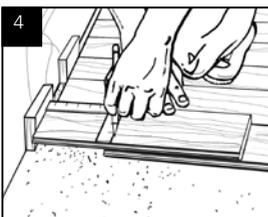
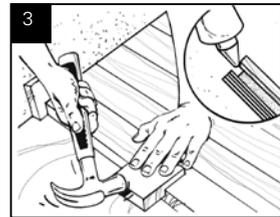
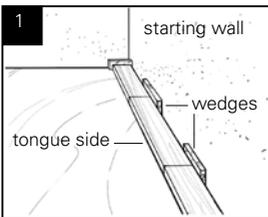
1. Plan the direction of the first run of boards.  
The direction of the boards are often dictated by several factors and should be considered in the following rank of priority.
    - Width of the room. It is best to run the length of the boards parallel with the longest length of the room (if rectangular in design) to allow for anticipated expansion at the width of the boards.
    - Full length windows. A factor to consider is that sunlight reflecting across the width of the boards will highlight the joints. If possible, without compromising the point above, run the boards perpendicular to the light source.
- Note:** The above can only best be used as a guide and the decision is best made on a job by job basis.
2. Conduct the necessary preparation to the substrate as described earlier.
  3. Under-cut door frames if applicable at this point.
  4. Unroll Boral Silkwood Underlay onto the subfloor with the pre-attached moisture barrier facing down. Boral Silkwood Underlay should butt together with the clear plastic moisture barrier providing a 150mm overlap. The seam should be sealed with the supplied double sided tape.
  5. Plan the location and type of any trims to be installed, as some trims are easier to install prior to installing the flooring.
  6. Set out the first run of floor boards using chalk/string lines and measuring tools. Alternatively, lay the boards parallel to the longest wall in the room, leaving a minimum expansion gap of 14mm along all walls. Place 14mm blocks/wedges along one end to maintain the gap while boards are being placed (see Diag. 2, Fig. 1). Be sure to remove wedges upon completion of the installation so that the floor is allowed to expand without restriction.
  7. Start the first row of boards with the groove facing the starting wall. Take the second board and apply an unbroken bead of Silkwood PVA adhesive to the topside of the groove (see Diag. 2, Fig. 2). Tap the boards together

using a Silkwood tapping block and a hammer and continue along the starting run.  
(see Diag. 2, Fig. 3)

8. Measure and cut the last board of the first row, remembering to allow at least a 14mm expansion gap. Use the pull tool to tightly fit the last board of the row (see Diag. 2, Fig. 4 and 5). It is important to work from five opened boxes so that the full range of colours and features can be mixed within the floor.
9. Start new rows with a board at least 450mm shorter or longer than the strip used in the previous row. This will prevent end joints from clustering throughout the floor.
10. When adding the next row, apply an unbroken bead of Silkwood PVA to the top side of the groove, along the length of the board and continue this along the length of the floor (see Diag. 2, Fig. 2). Tap the boards together using a Silkwood tapping block and a hammer for a tight fit.
11. Measure and cut the last board to fit, allowing for at least a 14mm expansion joint along its whole length. A pull tool will be needed to fit the last board closest to the wall (see Diag. 2, Fig. 6).
12. Clean up any excess adhesive with a damp cloth while working.



**Diagram 2:** Installation - Floating floor method



## Installation - direct stick method

1. Conduct the necessary preparation to the substrate as described earlier.
2. Under-cut door frames if applicable at this point.
3. Apply a moisture barrier as per the manufacturer's instructions. The installation of Silkwood flooring requires a continuous damp-proof membrane. In direct stick applications, this can be achieved using a waterproof vapour barrier membrane. Note: Care should be taken to confirm compatibility between the vapour barrier and selected adhesive.
4. Fit or apply the approved acoustic underlay if required as per the manufacturer's instructions.
5. Plan the location and type of any trims to be installed, as some trims are easier to install prior to installing the flooring.
6. Set out the first run of floor boards using chalk/string lines and measuring tools. Alternatively, lay the boards parallel to the longest wall in the room, leaving a minimum expansion gap of 14mm along all walls. Place 14mm blocks/wedges along one end to maintain the gap while boards are being placed. Be sure to remove wedges upon completion of the installation so that the floor is allowed to expand without restriction.
7. Using a polyurethane timber flooring adhesive, apply enough adhesive for the first run of flooring as per the manufacturer's instructions. In direct stick applications, adhesive must be applied with a notched trowel so that a full bond between the subfloor and the timber is achieved. Failure to do so will void the warranty and can result in a "drummy" sounding floor. Check the transfer of adhesive to the boards by inspecting the underside of boards during installation. In order for direct stick systems to perform at their optimum levels it is a requirement that at least 85% transfer of adhesive to board is achieved during installation.
8. Start the first row of boards with the groove facing the starting wall, remembering to allow at least a 14mm expansion gap. Measure and cut the last board of the first

row, remembering to allow at least a 14mm expansion gap. Use the pull tool to tightly fit the last board of the row. It is important to work from five opened boxes so that the full range of colours and features can be mixed within the floor.

9. Weight or fix first run in place. It is best to allow this first run to set before working against it to minimise any shifting during installation.
10. Start new rows with a board at least 450mm shorter or longer than the strip used in the previous row. This will prevent end joints from clustering throughout the floor.
11. Measure and cut the last board to fit, allowing for at least a 14mm expansion joint along its whole length. A pull tool will be needed to fit the last board closest to the wall.
12. Once laid the boards should be in constant, firm contact with the adhesive until cured. The application of appropriate weights, such as unopened boxes of flooring, will assist this process.
13. Excess adhesive should be removed quickly using the appropriate adhesive cleaner - this may vary depending on the adhesive used. It is important to follow the manufacturer's instructions.

**Note:** For further details regarding the direct stick method refer to adhesive manufacturer's instructions.



## The finishing touches

The expansion gap left between the wall and the Silkwood floorboards will need to be covered. This can be covered with an appropriate skirting which should be nailed to the wall and not fixed to the floor. If a Silkwood floor is installed with existing skirtings in place, use a fillet mould or scotia to cover the gap, fixed to the skirting and not the floor.

Upon completion care should be taken to protect the timber flooring from damage during the final stages of construction. Installation of the timber flooring should be completed at the final stage of the project so as to minimise any damage. However, the use of protective sheeting such as MDF (medium density fibreboard) to cover high traffic areas is appropriate where required. Care should be taken when installing the protective sheeting that no loose grit or obstructions get trapped underneath, as these will damage the coating when stepped upon.

**Note:** DO NOT cover the flooring with plastic sheeting of any kind, as this can cause the floor to sweat, leading to expansion of the flooring and possible damage to the coating.

## Post installation care and maintenance

- The surface of the floor should be kept as free as is practicable of grit and other abrasive material. It is recommended that dirt-trapping mats be used at all external doorways as they can significantly reduce the amount of stones, grit and sand entering the area.
- Sweep or vacuum the floor regularly to remove dirt and grit.
- Floors should be damp mopped (with a well wrung mop) to remove dust. The use of a pH neutral floor cleaner can help remove stubborn dirt.
- Felt protectors should always be fixed under furniture to prevent scratching.
- Monitor the climatic conditions. Silkwood flooring is not warranted where site average relative humidity conditions fall outside 30 - 60% (Floating installation as per this guide) or 30% - 70% (Direct Stick installation as per this guide). In cases of extreme climatic conditions it may become necessary to increase humidity using a humidifier, or decrease humidity using an air conditioner. This is especially relevant during periods of non-habitation when there is little or no air circulation within the property. This can lead to magnified levels of relative humidity and or temperature, causing the floor boards to expand and in some cases distort. If the residence is expected to be uninhabited for extended periods, care should be taken to control the climate with the use of air conditioning and/or humidity controls.
- Timber floors must be protected from direct sunlight with appropriate window treatments. Failure to do so may result in localised cupping and/or checking of the timber.

## Safe work practices

Wood dust may cause irritation and repeated inhalation may damage health and increase the risk of nasal cancer. Machinery or power tools may generate sufficient noise to damage hearing. The following work practices should be employed when working with timber.

- Work areas must be clean. Sawing, sanding and routing equipment should be fitted with dust extractors. Dust levels should be below standards set by Work Safety Australia for wood dust.
- When machining timber, respiratory protection, gloves, clothing, hearing and eye protection should be worn.
- After handling timber, wash skin thoroughly with mild soap.
- Regularly launder clothing.
- Dispose of waste material responsibly.



**Disclaimer:** Boral Timber Flooring retains the right to change specifications without notice in accordance with its policy of continued product development. Every care has been taken in preparing the information contained in this publication, however the company cannot accept responsibility for any inaccuracies that may have arisen and cannot accept liability for loss or damage either direct or consequential arising out of or in relation to use of application of the said information.

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