

## Solid Tongue &amp; Groove Flooring over Concrete Subfloor

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This sheet is designed to assist Architects and Designers with Timber Flooring Specifications.

Flooring to NZS3617, tongue and groove profile (unless detailed or selected otherwise) with species and grade to NZS3602. Moisture content: 10-12% at laying. Refer to NZS3602; table 4: allowable moisture content (%) at time of installation for different requirements.

### Products

1. JSC Timber Solid T&G Flooring Timber (preferably “end matched”), kiln dried to a moisture content to match the proposed installation environment, plastic wrapped and stored flat and inside until installation.
2. Concrete Sealer – *Selleys* OR *Bostik* Moisture Seal “VBS” two part epoxy vapor barrier system.
2. Adhesive for flooring timber – *Selleys* Direct Stick OR *Bostik* Ultraset DX
3. Mechanical fixing – 40-50mm flooring staples or cleats.
4. Polyurethane (moisture cured/waterborne) OR an approved hardwax oil.

**NB: When installing solid Kwila flooring a solvent based polyurethane must be used.**

### Installation

1. Start installation only when the building is fully enclosed, when all “wet “ trades have finished and when any heating or air-conditioning systems are operating.
2. Moisture testing of the concrete slab is essential. To determine how to proceed refer to relevant product information:  
*Selleys* <http://www.selleys.co.nz/trade/flooring-products/vapour-barrier/liquid-nails-vbs-vapour-barrier-for-sealing-concrete-slabs/>  
*Bostik* <http://www.bostik.co.nz/userdocuments/moisture%20seal%20tds%20v3.pdf>
3. Before installation, allow flooring to acclimatise (in fillet) to the environment for at least two weeks with any air conditioning or heating running. *Consult with your installer for more information.*
4. Check the moisture content of the timber flooring and ensure it is at the desired level for the installation environment.
5. Subfloor preparation:
  - 5.1 Diamond grind the entire floor area to remove surface layer, high spots and construction debris to ensure the best possible key to the slab.
  - 5.2 Ensure the subfloor is clean and dry and level as per Branz 534 Specification of maximum 3mm over a 3 metre straight edge in any direction
  - 5.3 Fill any low spots with a recommended self levelling compound.
6. Vacuum the diamond ground slab and apply the VBS vapor barrier system to the manufacturer’s specification. Restrict traffic and allow 6-8 hours to dry. **Two coats are required.**

7. Leave expansion spaces of 6mm at walls and flooring transitions/junctions to be covered by trim and skirting boards. On floors over 4 metres, an allowance for lineal wide expansion should be considered, bearing in mind the specie and the micro-climate of the room.

## Finishing

1. Sanding and coating – The flooring should be sanded, any gaps trowel filled (if required) and then coated with 3-4 coats of either moisture cured or waterborne polyurethane. Finishing in a hardwax oil is also an option. Please refer to the manufacturer's specifications and spread rates.
2. Protection – After the final coat, restrict all traffic for 48 hours, then allow only light, clean traffic for 7-10 days to allow to fully harden. Once fully hardened it may be covered with corrugated cardboard to protect from trade damage (vacuum carefully first). Avoid covering within the first 7 days and avoid covering with plastic at any stage.

## Important Notes:

Solar heat or internal heat build up can create heat in excess of 30-40°C which will buckle any floor. Areas near glass doors or walls of glass will be even hotter and must be protected by shade glass or some form of screening – either external or internal. In some cases sensory controlled ventilation is required, particularly if a residence is left unattended for a period. This is a prime reason for cupped and shrunken floors.

Unless JSC Timber "Wooden Flooring Hand-over Certificate" details are confirmed and the wooden flooring is fully conditioned/acclimatised to the actual ambient moisture conditions of the dwelling (as specified above), prior to fixing, JSC Timber cannot be held liable for subsequent shrinkage or expansion.

This information is designed as a guide and should be read in conjunction with the relevant manufacturer's product information and installation material and in consultation with your Installer.