

GENERAL

Timber is a natural product and will absorb and transpire moisture during its life, so as flooring, there will always be movement in individual boards.

The care taken during handling, installation and finishing will minimise this movement. To achieve the best possible end result with traditional hardwood timber flooring products it is essential that correct procedures are followed.

PRODUCTS

ROSENFELD KIDSON SOLID T&G FLOORING

Solid timber flooring is available in a range of species, grades and sizes. Thicknesses range from 13mm overlay to 21mm thick boards. Refer to Rosenfeld Kidson Solid Timber Flooring Brochure to see the full range.

TIMBER TRIM

Solid timber trim available to compliment flooring choice, such as skirting, architrave and stair nosing etc.

ADHESIVES

Handley Industries Uni-Stick One Component Timber Flooring Adhesive.

COATING PRODUCT

Rubio Monocoat Oil Plus 2C

Handley Industries Aquapol Water borne Polyurethane – Satin/Lo-sheen/Matt/Matt Plus

Handley Industries Solvent borne Polyurethane – Gloss/Satin/Lo-sheen

BEFORE INSTALLATION

CHECK TIMBER

Prior to laying, check the timber is the correct species, grade and size. Check the quantity is correct and no excessive damage has occurred in transportation.

Check the moisture content of the timber flooring with a calibrated moisture meter to ensure it is within the specified range.

DO NOT START

Do not start laying before the building is enclosed, doors are hung and lockable, including the garage, wet work complete, full lighting available and in the case of air-conditioned buildings the air-conditioning has been operating for four weeks.

INSPECT THE SUBSTRATE

Make sure any framing timbers laid as flooring support are at the correct moisture content. Framing timbers should have the same moisture content as the timber strip flooring.

The substrate should be of a suitable finish. Do not start laying if the substrate will not allow work to the required standard.

INSTALLATION

INTRODUCTION

While laying solid timber flooring over a concrete slab or solid substrate, such as particleboard or plywood, are the most common and recommended flooring systems today, there is still demand for laying solid timber flooring over timber joists.

Please note there will be more movement in the flooring boards compared with these other methods, due to lessor fixing points present in the substrate.

If recommendations are not followed correctly, problems can occur. Some of the most common of these according to BRANZ are:

- Ignoring good practise (timber strip floors should not be pre-laid, as is done with particleboard).
- Incorrect moisture content in the flooring or floor joists at the time of laying.
- Damp subfloor spaces.

SUBFLOOR PREPARATION

The size of timber members used to support the flooring boards can be determined from NZS3604 – Timber-framed buildings. Ensure joist spacing is suitable for the flooring thickness and check that the joist size is suitable for the span. This is typically a maximum of 450mm centres.

Floor joists should be sufficiently dry to the ambient moisture content and this will be affected by what heating and ventilation systems are present and how exposed the framing is to the ground.

Ensure the upper surfaces of the floor joists are level to a tolerance of a maximum of 3mm over 3.0 metres in any one direction.

OVER TIMBER JOISTS

Securely fix all framing to the bearers. Provide blocking to the joists as per NZS3604.

Sub-floor ventilation must be provided in accordance with the requirements of E2/AS1. Sub-floor insulation should also be installed, as per manufacturer's recommendations.

Lay polythene over the ground to better manage ground moisture.

FLOORING INSTALLATION

The Rosenfeld Kidson 'over-joist' flooring profile must be used to ensure sufficient strength of floor board joints between joists. Do not pre-lay timber flooring boards. Installers also need to consider how the boards will be distributed in the floor in terms of length, grade, feature and colour. It may be necessary to lay from more than one pack at a time so that timber variation can be blended through the floor. Single boards with highly contrasting appearance should not be installed in highly visible locations.

When laying over joists, where possible, boards are to be supported on at least three joists. Butt joined boards must be cut to join over floor joists and joints in adjacent boards should be staggered. End-joining of boards can be facilitated between joists by using end-matched boards. End-matched joints in adjacent boards should not occur within the same span between joists.

Before laying, Handley's Uni-Stick flooring adhesive should be applied to the tops of the joists, as per manufacturer's specifications.

Leave control joints in place to allow movement in the timber, such as a 6-8mm gap around the perimeter of the room. Begin with tongue facing the wall.

Straighten this initial board and continue laying the boards. Install movement control joints within the floor area to accommodate movement where the floor width exceeds 9m or at 9m maximum centres – fill joints with either compressible cork or a sealant formulated for use with timber flooring.

Concealed nailing is the most common practise these days and is achieved using specific flooring profiles and tooling that enables this. Apply a good coverage of Uni-Stick flooring adhesive to the tops of the joists. Secretly fix a minimum of every third board to the joist using a 50mm x 16 gauge cleat (such as Primattech brand) at 300mm centres.

ACCLIMATISATION

Following installation and prior to finishing, flooring should be left for a period of four weeks or more to allow acclimatisation to the final ambient room conditions, with heating or air-conditioning systems running, if present.

FINISHING

Protection

Timber floors must be protected from damage that could occur before the floor is coated and/or the building work is finished – typically softboard sheets should be laid over the surface to provide protection from foot traffic and dropped tools before and after sanding and coating.

Preparation

Epoxy fill knots, if present e.g. 'Feature Grade Oak'. Solid timber floors require sanding before the application of a coating system to ensure joints are level and all machine marks in the timber are removed. Good preparation of the surface is crucial for an optimum finish. The surface must be clean, dry and free from wax, grease or dust. All previous coatings must be removed. The surface should be fine sanded with a 150# sandpaper or screen disc and then vacuumed thoroughly.

Recommended floor finishing options include Rubio Monocoat Oil and Handley's Polyurethane.

RUBIO MONOCOAT OIL PLUS 2C

Refer to the manufacturer's specifications for detailed application information.

RMC Cleaner is a cleaner which, following the sanding and vacuuming processes thoroughly cleans the surface preparing it for treatment with Rubio Monocoat Oil.

Colouring and protecting is done with RMC Oil Plus 2C.

Carefully mix and stir the two components. Apply a small amount of RMC Oil Plus 2C and spread it out with a cloth, a brush or polisher with a thin beige pad. Treat one zone of 5-10m² at a time.

Leave to react for a couple of minutes. Remove all excess oil with a non-fluffy cloth or polisher with a thin white pad with 15 minutes per zone. The surface should feel hand-dry after removal of the excess product.

In a well ventilated room, the surface can be used 24-36 hours after the application.

HANDLEY'S WATERBOURNE & SOLVENTBOURNE POLYURETHANES

Refer to the manufacturer's specifications for detailed application information.

Waterbourne polyurethanes are not recommended on dark-coloured timbers, such as Kwila and Jarrah.

Apply the first coat evenly with a Handley approved floor coating applicator, 10mm nap roller or soft brush and allow to dry (3 to 6 hours). Lightly sand with 240# sandpaper, vacuum thoroughly and apply a second coat. Repeat this procedure until the desired finish has been attained – normally 3-4 coats are sufficient.

Coverage is approximately 8-10 sq m²/ltr (depending on porosity).

As complete curing of a polyurethane floor takes a full 7 days (usually waterproof after 3 days), care must be exercised during this time. Avoid dragging furniture etc. over the surface. Use protective mats in traffic areas. To extend the life of the floor, mats should be used in doorways in order to remove dirt and grit from feet.

Protective pads should be used on the legs of furniture. The floor should be swept frequently and washed with hot water and a small amount of dishwashing detergent, after seven days curing.

DOCUMENTS

The following documents may be applicable to this work:

NZBC C/AS2-AS7	Protection from fire
NZBC C/VM2	Protection from fire
NZBC D1/AS1	Access routes
NZS 3604	Timber-framed buildings
AS/NZS 2269.0	Plywood – Structural – Specifications
AS 4586	Slip resistance classification of new pedestrian surface material
ISO 9705	Fire tests – Full scale room test for surface products
BRANZ BU 330	Thin flooring materials – 2 Preparation and laying
BRANZ BU 506	Laying Solid Strip Flooring on Concrete Slabs
ATFA	Australian Timber Flooring Association – Solid Timber Flooring Industry Standard Technical Publication Version 3 – June 2016

MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to this part of the work:

Rosenfeld Kidson Solid Timber Flooring Brochure
 Rosenfeld Kidson Solid Timber Flooring Specification
 Rosenfeld Kidson timber flooring profile drawings
 Handley Industries Uni-Stick Timber Flooring Adhesive Brochure
 Handley Industries Uni-Stick Timber Flooring Adhesive Directions for Use
 Handley Industries Uni-Stick Flooring Adhesive Material Safety Data Sheet
 Handley Industries Aquapol Water Bourne Polyurethane – Satin, Low-sheen, Matt and Matt Plus
 Handley Industries Solvent Bourne Polyurethane – Gloss, Satin or Low-sheen
 Rubio Monocoat Application Instructions
 Rubio Monocoat Care and Maintenance Guide
 Rubio Monocoat Oil Plus 2C Material Safety Data Sheet

