

RADIATA PINE

INSTALLATION AND MAINTENANCE GUIDELINES

1. Introduction

Proper installation, care and maintenance will ensure you get the best performance from your deck. These recommendations should be read in conjunction with NZS3602, NZS3604, NZS3605, NZS3640, NZS4203 and BRANZ Bulletin 489 and any relevant Territorial Authority requirements.

2. Storage and Handling

Pine decking should be kept dry and out of the weather until installation. On site each pack should be kept off the ground by at least 100mm by placing it on bearers and covered or placed under cover, to protect from sun and rain.

3. Installation

Ventilation

Free air circulation under the decking is **very important** to help minimise cupping and warping for any timber. Proper ventilation ensures the potential difference in moisture levels between top face and the underside of the boards is reduced and extends the life and performance of the deck. The sub deck should have at least 450mm clearance from the ground and should also have adequate drainage. This, in conjunction with suitable spacing, will allow for adequate ventilation. NB: It is important that the perimeter of the deck is not fully enclosed by a surround, and remains open to airflow. Completely enclosing the sides of the deck will inhibit proper ventilation and compromise the performance of the decking. In wet areas or over water, additional clearance is recommended. **Failure to provide for suitable ventilation is a major cause of early decking failure.** Other steps that can be taken to minimise moisture differential are:

- A ground level vapour barrier (with slit drainage).
- A suitable surface coating on all four sides of the decking boards (refer coating section).

Span

Pine Decking 19mm thick should be installed at maximum 450mm joist centres. For 32mm thick decking this can be increased up to 600mm joist centres. Screws should penetrate at least 40mm into the joists to achieve good holding. Pre-drilling and counter-sinking screws is recommended to avoid end splits.

Coating

In order to minimise surface checking, cupping and discolouration it is recommended Pine decking be coated on all four sides prior to being laid. This will slow moisture transference into and out of the wood, thus maintaining more even moisture content through the piece. Proper coatings can vastly decrease the maintenance required on your decking. NB: Boards should be free of all surface marks and stains before coating.

Spacing

In average New Zealand climatic conditions, Kiln Dried (KD) decking will expand slightly. KD (i.e. under 18% moisture content) decking will need extra spacing or gaps, to allow for expansion as the decking takes in ambient moisture. If laid too closely the deck will swell and possibly lift off the joists. In average New Zealand climatic conditions 90x19mm KD decking should be spaced 4mm apart. 140x19mm decking should be spaced 6mm apart. The specified gap for each size will allow the deck to drain and allow air circulation under and around the decking. **NB: These are recommendations only. An allowance for regional climate conditions should also be factored in.**

Fastening

Screws are recommended for 140x19mm decking. We recommend 10g 65mm stainless steel (T316) screws through the pre-drilled and countersunk face of each board, two per joist 20 mm from the ends and edges. Care should be taken not to over-drive screws. For 90x19mm decking nails are suitable but for a better result screws are also recommended (see PlaceMakers Fastening Catalogue for full range). If you choose nails they should be of sufficient length (60mm), stainless steel (T316) with annular grooves.

4. Maintenance

Remember at all times that pine decking is a natural timber product and so slight cracking and movement may occur; especially in the hotter drier seasons. It is natural that with New Zealand's high levels of UV that most timber silvers-off over time.

Preventative Measures

There are a number of things that you can do to minimise the amount of mould and dirt build up on your deck.

- Ensure any object like pot plants are raised off the deck. Small "feet" can be purchased to ensure ventilation under pot plants so mould and rot does not build up.
- Remove any leaf build up during autumn. Leaf piles can trap moisture and mould.
- When you build/design your deck ensure there is plenty of ventilation so that the decking gets a chance to dry out.
- Make overhead structures (e.g. pergolas) or branches difficult for birds to perch on to reduce the amount of bird droppings.

Grip Tread vs Smooth

Grip tread decking is required by law for any deck that the public may have access to. Grip tread will provide better traction on your deck but it needs to be cleaned more often as debris can build up in the grooves.

Maintenance Procedure

A. The first step to cleaning your deck is to give it a good sweep with a hard bristled broom to remove all loose debris and material. This should be done 2-3 times a year and even more in autumn if you have nearby trees.

B. Have a look for any structural issues and fix them, including:

- Nails or screws sticking out – hammer or screw these back in or replace.
- Rotting timber – replace boards with new decking
- Knots falling out – replace boards with new decking.

C. Apply a deck cleaning solution. It is recommended that the cleaning solution is biodegradable and not harmful to plants. It is also beneficial if the cleaner has a mouldericide in it to kill and stop the regrowth of any moulds. Read the manufacturer's instructions on solution strength, application method and removal process. A water blaster can be used but the pressure should be no higher than 600 PSI, the nozzle should not be held in one place for too long or too close to the deck.

5. On-going maintenance

The above procedure should be completed on a regular basis. To make your deck better for longer and to reduce the build-up of mould decks can be stained or painted. Refer to the stain or paint manufacturer's instruction to achieve the best results for this procedure.

6. Disclaimer

Pine decking is manufactured with care and inspected to ensure quality, but it is a natural wood product and subject to variations in weight, density, colour, grain and performance. Care must be taken at installation and maintenance to allow for movement. Some swelling, shrinkage, movement and checking are normal occurrences in all timber decking.

The material in these guidelines were taken from guidelines supplied by Rosenfeld Kidson and JSC timber. PlaceMakers takes no responsibility for there accuracy or for any damage caused directly or indirectly through there use.