

Hardwood Decking Installation Guide

All decking timber should be checked prior to installation to ensure that the product is fit for purpose and of merchantable quality. These decking installation recommendations can be applied all hardwood decking species supplied by IWD Ltd. The most important thing to establish is if your decking timber is Kiln Dried or Air Dried. Only then can you make the correct spacing allowance. These recommendations should always be read in conjunction with NZS3602, NZS3604, NZ3605, NZ3640, BRANZ Bulletin 489 and any relevant Territorial Authority requirements.

Disclaimer

All our decking is manufactured with care and inspected to ensure quality, but it is a natural wood product and as such is subject to variations in weight, density, colour, grain and performance. Care must be taken at installation and during maintenance to allow for movement. Swelling, shrinking, movement and checking are normal and to be expected with natural wood decking.

Transport, Storage and Handling

All decking timber should be kept dry until installation. On site storage of decking should be in a cool, dry place, kept off the ground by placing it on bearers (about 100-150mm high) if outside covering with a tarp to protect from the elements is also recommended.

Installation

Span

19mm & 21mm decking should be installed at maximum 450mm joists centres; 32mm (or thicker) decking can be on up to 600mm joists centres. Given that radiata joists are softwood and the decking is a hardwood, the joists should be clean and sound and the screws should penetrate at least 40mm into the joists to achieve good holding. Pre-drilling and countersinking is essential for hardwood decking.

Spacing

In average New Zealand climatic conditions kiln dried decking will expand and air-dried decking will shrink. Check the label or check moisture content (MC) with your moisture meter as to whether your deck is kiln dried or air dried.

For kiln dried decking (16-20% MC), in order to allow for expansion, we recommend 90x19 pieces should be spaced 4mm apart and 140x19 6mm apart. The gap will allow the deck to drain and allow air circulation between, under and around the decking.

In the case of air-dried decking (over 20% MC), the decking will shrink as it dries so the gap can be reduced to 3mm for both 90x19 and 140x19.

Please note: These are recommendations only. An allowance for regional climatic conditions should also be factored in.

Ventilation

Free air circulation under the deck is essential as it helps to minimize cupping and warping following installation. Proper ventilation ensures the possible difference in moisture levels between top face and the underside of the decking is minimized extending the life and performance of the deck. The underside of the deck should have at least 450mm clearance from the ground which, in conjunction with adequate board spacing, allows for adequate ventilation. In wet areas or over water, additional clearance is recommended as is keeping the perimeter of the deck open to allow maximum air flow. Additional steps for minimizing the moisture differential are the use of a ground level vapour barrier (with slit drainage) and a suitable surface coating on all four sides of the decking boards.

*****The failure to provide suitable and adequate ventilation at construction is a major cause of early decking failure*****

Fastening

IWD Ltd recommends that all hardwood decks are fixed with screws. For 140x19 decking SCREWS ARE ESSENTIAL. We recommend 60mm stainless steel screws through pre-drilled holes, two per joist. For 90x19 decking screws are also recommended. However, if you chose nails they should be of sufficient length (60mm) with annular grooves. Pre-drilling is still recommended for nailing – to help prevent splitting.

Coating

In order to reduce surface checking, cupping and discolouration we recommend decking be coated on all four sides, prior to installation. Sealing all four sides of the boards slows moisture flowing into and out of the wood, maintaining more consistent moisture content throughout the piece and so reducing the potential of cupping and checking. Proper coatings can increase the life of your decking. Coating will also inhibit any 'bleeding' of the timber. Boards should be free of all surface dust, marks and stains before coating.

End sealing

End sealing should be done as soon as possible after cutting, before final installation. It helps minimize splitting and checking at the ends of boards. Suitable end sealer may depend on finishing coats; many migrating decking stains used for coating are also suitable for end sealing as well.

Maintenance**Cleaning & Washing**

Hardwood decks should be cleaned with a stiff brush at least once a year to clear gaps and remove surface mould which can be a slip hazard. Keeping the deck clear of leaf litter and moving pot plants or other large objects that may hold moisture to the top of the deck, are also important for the life of the deck.

Hardwood Decking can be water blasted but it is important to do so at a low pressure so as not to damage the fibres of the timber with too much pressure and/or too close. Care must be taken not to stop abruptly at the end of the pass but to lift the nozzle away when changing direction. Water blasting will affect the life of any coating(s) you may have used so be prepared to re-coat after water blasting.

Alternatively, various chemical cleaning agents are available, from detergents through to acids. Follow manufacturer's instructions and be aware of the runoff when using chemical agents. Chemicals can also affect life of coatings.

Re coating

Coating manufacturer's specifications for recoating should be followed. We recommend clear or light colours as dark colours will heat up and put more stress on the decking. Can also be very hot to walk on in the height of summer.

Please contact us for further information.