

Cumaru Installation and Maintenance Guidelines

Specie	Appearance	Hardness	Bending strength	Decay Resistance
Cumaru/Brazilian Teak	Colour varies from a golden tan to a reddish brown with some dark grain accents throughout the wood.	3,540 lbs	14,793 psi	Very durable and naturally resistant to decay and insects. Offers up to 50 year lifespan.

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

Storage and handling

Cumaru decking should be kept dry and out of the weather until installation. On site the hardwood should be kept off the ground (by at least 70mm) by placing it on dunnage and covered to protect it from the elements.

Installation

Ventilation

Free air circulation under the decking is very important. This helps minimise the potential of it cupping and warping. Proper ventilation ensures there is no difference in moisture between the top side and the under side, 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. A ground level vapour barrier (with slit drainage).
- b. A suitable surface coating on all four sides of the decking boards. (Contact us for recommendations)

Span

Cumaru Decking 21mm thick should be installed at maximum 450mm joist centres. Given that the pine joists are softwood and Cumaru is a strong hardwood, the joists should be clean and the screws should penetrate at least 40mm into the joists to achieve a good holding. Pre-drilling and counter-sinking is recommended to avoid end splits.

End sealing

End sealing will help minimise splitting and checking at the ends of the boards. We recommend the boards be end-sealed with a quality penetrating oil as soon as possible after cutting and before final installation.

Coating

In order to minimise surface checking, cupping and discolouration it is recommended Cumaru 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. It is recommended that a "clear" decking oil is used.

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 90x21mm decking should be spaced 4mm apart. 145x21mm 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 essential for 145x21mm decking. We recommend 10g 65mm stainless steel (316) screws through the pre-drilled and countersunk face of each board, two per joist 20mm from the ends and edges. Care should be taken not to over-drive screws. For 90x21mm decking screws are also recommended. However, if you chose nails they should be 60mm or more, stainless steel (316) with annular grooves.

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 in wet weather. It is also important for the life of the deck to keep it clear of leaf litter, place pot plants or other large objects on raised "feet" to allow the decking under them to dry out. 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 board by going too hard and/or too close. Care must be taken not to stop at the end of the stroke but to lift the nozzle away when changing direction. Washing/brushing the deck down with a mild solution of Janola and water (1:16), or suitable equivalent, will remove any build-up of resin or extractives that may leach out of the timber as the pieces "season" in situ. There are also various chemical cleaning agents available, from detergents through to acids. Follow manufacturer's instructions and be conscious of the run off. The amount of run off will depend on the specie, how dry it is before the decking is laid and how exposed the deck is to the weather.

Disclaimer

Hardwood 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 timber decking.