

PURPLE HEART

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

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

Span

Purple Heart Decking 19mm thick should be installed at maximum 450mm joist centres. For 32mm thick decking this can be increased up to 600mm joist centres. Given that Radiata pine joists are softwood and Purple Heart is a strong 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 counter-sinking is essential 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 Purple Heart 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 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 essential 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 screws are also recommended (see PlaceMakers Fastening Catalogue for full range). However, if you chose nails they should be of sufficient length (60mm), stainless steel (T316) with annular grooves.

4. 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.

Re-coating

Always follow the manufacturer's specification for re-coating.

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.

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.