

## Handling & Installation - Hardwood Decking

At BBS Timbers we supply Kwila, Purpleheart, Wallaba, Garapa & Ipe Hardwood Decking.  
Standard sizes are 90x19,140x19,140x25 - Camber Decking 140x21

Trade Name	Kwila	Purpleheart	Garapa (KD)	Wallaba	Ipe
Origin	Papua New Guinea	South America	South America	South America	South America
Botanical Name	Intsia spp	Peltogyne species	Apuleia mollaris	Eperua falcata	Handroanthus spp.
Durability (above ground )	Durable	Very Durable	Durable	Very Durable	Very Durable
Density ( Air Dry )	850 kg/m <sup>3</sup>	860 kg/m <sup>3</sup>	830 kg/m <sup>3</sup>	928 kg/m <sup>3</sup>	1100 kg/m <sup>3</sup>
Hardness ( Janka )	8.6 kN	11.0 kN	7.4 kN	8.4 kN	15.6 kN
Shrinkage (Green to 12% mc)	1.5 Radial , 2.5 Tangential	3.0 Radial , 6.0 Tangential	3.5 Radial , 6.5 Tangential	2.3 Radial 6.5 Tangential	5.9 Radial 7.2 Tangential
Standard Sizes	90x19,140x19	90x19,140x21,140x45	90x19, 140x19	140x25	140x19
Length Range	1.8 - 5.4 M	2.7 - 6.2 M	1.8 – 5.4 M (Ave- 3.3)	1.8 – 4.8 M	2.1 – 5.7
Bleeding	Medium - High	None	None	Minimal	Minimal

### Hardwood decking Handling & Installation

All air-dried decking should be kept dry before installation. Storage of decking on site should be in a cool, dry place, out of direct sunlight and elevated on bearers approximately 100mm from ground allowing air flow.

#### Preparation

Some of the boards may have defects so it is important to either cut out the defect or put the board to one side and use as a short later. Sort the lengths of the boards so you can obtain full usage without much waste. Hardwood Timber decks have usually been left to weather but with various stains on the market now it has given a few more options. It would be wise to pre-coat your decking prior to fixing thus eliminating those hard areas to get to once fixed.



#### Planning

19mm decking should be installed at maximum 450mm joists centres; 32 & 42mm decking can be on up to 600mm joists centres. Given that Radiata pine joists are softwood and our decking 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 advised. Consult an Engineer for your project specifications.

#### Spacing

With the climatic conditions in New Zealand **Kiln Dried (KD)** decking will expand and **“Shipping dry” (green)** decking will shrink. Check with your supplier as to which you are purchasing.

With the recent introduction of **Kiln Dried (KD)** decking into New Zealand you must allow for an expansion of 4mm for 90x19 and 6mm for 140x19. Gaps between the boards allow for water runoff and air flow.

For **Shipping Dried (green)** decking allow for approximately 2mm - 6mm as the timber will shrink for 90x19 & 140x19



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

## Fixings

### **BBS Timbers recommend:**

90x19 & 140x19 Decking should be fixed to every joist with 10g x 65mm Stainless Steel Decking Screws. Pre-drill pilot holes slightly smaller than the screw and countersink. Drill pilot hole 12.5mm for 90mm wide decking & 15mm for 140mm wide decking in from the edge of the boards.



## Ventilation

Adequate ventilation of the deck is essential for long term stability. Allowing air to freely circulate around the deck will reduce the moisture differential between the top and underneath of the boards, minimising the likelihood of cupping and distortion following installation. To achieve proper ventilation the deck should have at least 450mm clearance from the ground.

## Coating

To minimise surface checking, cupping and discolouration we recommend the decking be coated on all four sides. Sealing all four sides of the boards will reduce potential cupping and checking by slowing moisture transference into and out of the wood, thus maintaining more even moisture content through the piece. Suitable coatings will vastly decrease the maintenance required on your decking. We recommend BBS factory coated decking oil.

## End sealing

End sealing will help minimise splitting and checking at the board ends. We recommend the boards be end-sealed as soon as possible after cutting, before final installation. Suitable end sealer may depend on finishing coats. Any coating used should be tested first on a small sample to ensure compatibility and always follow the manufacturer's application instructions. We recommend BBS Anchor Seal from any of our 3 branches nationwide.

## Maintenance

### Uncoated Timber

To keep your hardwood deck properly maintained will vary depending on the location of the deck, its construction and many other factors like, coating, drainage, profile and usage etc. Your deck should be cleaned at least once annually to remove debris, accumulated dirt and surface mould etc. A hard-bristled brush or low-pressure water blast will give best results. Chemical cleaning products that can be effective are also available.

### Coated Timber

Use the same maintenance as for an uncoated deck but also inspect the deck annually for signs of peeling, discolouration or excessive wear to the coating. At least annually or as the coating shows signs of wear; apply an extra coat or two of the previous products used as per product manufacturer's application instructions.

## **Disclaimer**

BBS Timbers Hardwood Decking is manufactured with care and inspected to ensure quality. However, 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 and some swelling, shrinkage, movement and checking are normal occurrences in hardwood decking

**Note:** These guidelines should be read in conjunction with the New Zealand Building Code. When building a deck please refer to the following standards: NZS3602, NZS3604, NZS3605, NZS3640 and NZS4203. Other recommended references include BRANZ Bulletin Issue 489 (*Timber slat decks/balconies*)