# JSCTimber Kwila Hardwood Decking

Kwila is a medium to large tree found throughout the South Pacific. It has a deep red brown colour and a distinct golden fleck in the heartwood. It is a highly durable hardwood used around the world and is considered a benchmark for decking. Proper care and maintenance will ensure you get the best performance from it.

## **Installation Notes**

NB: These decking installation recommendations are not just specific to Kwila. They can equally be applied to most other medium and heavy hardwoods supplied by JSC Timber. It is essential to know if your decking is DRY or WET (green). Only then can you make the correct "gap" allowance.

These recommendations should be read in conjunction with NZS3602, NZS3604, BRANZ Bulletin 489 and any relevant Territorial Authority requirements.

# Disclaimer

JSC's 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. Swelling, shrinkage, movement and checking are normal occurrences in wood decking.

# **Storage and Handling**

Kwila decking should be kept dry and out of the weather until installation. On site each pack should be kept off the ground by placing it on bearers and covered with a tarp to protect from sun and rain.

# Installation

## **Ventilation**

Free air circulation under the decking is very important to help minimise cupping and warping. 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 to allow for adequate ventilation in conjunction with suitable board spacing. In wet areas or over water, additional clearance is recommended.

Other steps that can be taken to minimise moisture differential are - a ground level vapour barrier (with slit drainage) and a suitable surface coating on all four sides of the decking boards (see coating section). Failure to provide for suitable ventilation is a major cause of early decking failure.

## <u>Span</u>

19mm decking should be installed at maximum 450mm joists centres; 32mm decking can be on up to 600mm joists centres. Given that Radiata pine joists are softwood and Kwila 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.

## End sealing

End sealing will help minimise splitting and checking at the ends of the boards. We recommend the boards be endsealed as soon as possible after cutting, before final installation. Suitable end sealer may depend on finishing coats; many migrating decking stains such as Dryden's wood oil are suitable for end sealing as well as coating the entire board.

#### **Coating**

In order to minimise surface checking, cupping and discolouration we recommend 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. Proper coatings can vastly decrease the maintenance required on your decking. *Boards should be free of all surface marks and stains before coating.* 

#### **Spacing**

Traditionally all hardwood decking has been supplied "ship dry" or green. Only recently has Kiln Dried (KD) decking been introduced. In average New Zealand climatic conditions Kiln Dried decking will expand and "ship dry" decking will shrink. Check the label or check with your moisture meter as to whether your deck is Kiln Dried or "ship dry".

For Kiln Dried (under 18% moisture content) decking will need extra spacing or gaps to allow for expansion as the decking takes in ambient moisture. We recommend 90x19 pieces should be spaced 4mm apart and 140x19 a 6mm spacing should be sufficient. The gap will allow the deck to drain and allow air circulation under and around the decking.

In the case of "ship dry" decking, the decking will shrink as it dries so the gap can be reduced to 2mm for both 90x19 and 140x19.

### NB: These are recommendations only. An allowance for regional climatic conditions may also be factored in.

#### Fastening

JSC Timber advocates that all hardwood decks are fixed with screws. For 140x19 decking SCREWS ARE ESSENTIAL. We recommend 60mm stainless steel screws through the pre-drilled face of each board, 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.

# 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. 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, is also important for the life of the deck.

Hardwood Decking can be water blasted but it is important to do so at a <u>low pressure</u> so as not to damage the fibres of the board by going too hard, 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 (1 cup per 4 litres of water) 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

Manufacturer's specification for recoating should be followed. We recommend clear or light colours as dark colours will heat up and put more stress on the decking.

#### Please contact us for further information: specification@jsctimber.co.nz

May 2012

www.jsctimber.co.nz Auckland: 102 Main Road, Kumeu, ph: 09 412 7722 Christchurch: 72 Hammersmith Drive, Sockburn, ph: 03 348 9726