

Merbau Decking



Merbau (Kwila) is a hardwood ideally suited to the manufacture of outdoor furniture and decking. Not only does it have a beautiful grain and appearance, it is regarded as one of the world's most durable timbers. An abundance of natural oil in the wood ensures your outdoor setting looks good, is easy to maintain and lasts for many years...in all conditions!

Current Uses for Merbau (Kwila) Lumber

- Engineering: Cross arms, bridge building, piles sleepers, posts wharfing, mining and timbers.
- Construction: framing. Decking, treads, general construction
- Decorative: Furniture (especially outdoor settings), turnery, paneling, joinery, shop fitting, cabinet making, parquet flooring, carving, veneer, counter and bench tops.
- Others: Boatbuilding (especially for decking), vats, musical instruments and tool handles

Cutting, drilling and nailing

Working properties variable:

- Turns well
- Cuts clean but may have a blunting or gumming effect on cutting edge. Resistant to splintering.
- Cutting angle should be reduced to 20 degrees when planing quarter sawn stock, the planed surface is also slightly oily.
- Predrilling is required for self-tapping and deck screws.

Test Conditions	Sawing		Planing		Boring	
	Resawing	Cross Cutting	Ease of Planing	Quality of Finish	Ease of Boring	Quality of Finish
Air-dry	Slightly Difficult	Slightly Difficult	Slightly Difficult	Smooth	Easy	Smooth

Wood Anatomy Characteristics

- Vessels: Moderately large, visible to naked eye, short radial pairs or multiples of and solitary cells. Sulphur-yellow and dark colored deposits are often visible. Vessel lines are prominent on longitudinal surfaces.
- Rays: Moderately fine and may be visible on the end and tangential surfaces without lens.
- Burning splinter test: A match sized splinter burns to white ash

Color

Merbau heartwood has a yellowish-brown or orange brown when first cut, turning darker with age to a brown or deep reddish brown. Sapwood is white, pale yellow or buff and sharply different from heartwood.

Grain is variable but usually interlocked or wavy, texture is coarse but even.



Durability

Class 2: Highly resistant to decay when fully exposed to the weather, clear of ground and well drained with free air circulation. Moderately decay resistant on the ground. Minimal shrinkage due to weathering and grain provides high resistance to splintering. Average life expectancy is 25-50 years with proper installation.*

* Australian Forestry Department



General Construction Information

Seasoning

Seasons well with kiln or air drying, with little degrade and very little shrinkage or movement.

Air-dry moisture content (%)	Shrinkage (%) Green to Air-dry		Time to air-dry (months)	
	Radial	Tangential	15mm (1/2 inch)	40 mm (1-1/2 inch)
15.0	0.9	1.6	4.5	6

Strength Group*

S2 seasoned and SC3 unseasoned

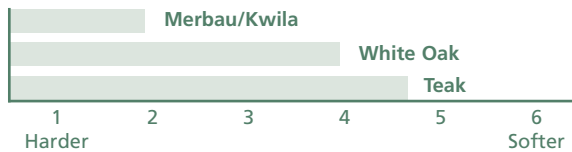
	Test Conditions	Modulus of Elasticity (1,000 psi)	Bending Strength (psi)	Maximum Crusting Strength (psi)	Movement in Service Rating	Lab Toughness	Density/Hardness (Janka scale)
Merbau	12% MC Air-dry	2,610	21,300	11,700	small	190 inch/ lbs	1925
Teak	13% MC Air-dry	1,390	13,310	6,770	small	116 inch/ lbs	1155

* USDA Forest Service Products Laboratory

Hardness*

Rating 2 on a 6 class scale. Hard in relation to indentation and ease of working with tools.

* USDA Forest Service Products Laboratory



Weathering Process

Merbau products need a minimum of care to maintain the new look of the timber. Merbau's natural oil will cause the deck to 'bleed' when initially exposed to rain or heavy dew. The tannin will appear as a dark red liquid similar to coffee. As the nature of each piece of timber is different, the bleeding period is unpredictable in length but generally is completed in a matter of hours. A thorough hose-down of the deck or heavy rainfall will assist in flushing excess tannin away. The natural oil remaining in the wood acts as a preservative to protect the timber from splitting or cracking. Merbau will turn a silvery gray if left untreated but can easily be restored to the original color with simple maintenance.

Shrinkage

Shrinkage to: 12% MC.
2.6% tangential
1.2% radial

Gapping Merbau Lumber

- Width to width gap required is 3/32" minimal.
- When joining Merbau end to end, gapping is also required. The gap will depend on the length of the board and the temperature (1/16" - 3/32").

Insect Resistance

Merbau is highly resistant to insect infestation.

Preservation

Initial "bleeding" period must be completed before any application. Merbau accepts most common decking treatments. It is recommended to test on a small area prior to treatment.

Dimensions

Merbau decking is available in a variety of lengths and widths. Please contact your dealer for details. Custom sizes are also available.



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