

HANDYDECK DECKING TILES - LUMBER SPECIES COMPARISON

Common Name	BRAZIL WALNUT	BRAZIL TEAK	JAVA IRONWOOD	ROSE GUM
Other names	Ipe	Cumaru	Bangkirai, Balau, Shorea	Flooded gum, Scrub Gum
Botanical name	<i>Tabebuia Lapacho</i>	<i>Dipteryx odorata</i>	<i>Shorea sp.</i>	<i>Eucalyptus Grandis</i>
Wood colour	Olive brown to moderately dark brown, often with lighter or darker striping.	Brown yellow to reddish brown, with fine dark veins.	Yellow brown, brown or brown with reddish tinge.	Pinkish to pale red brown
Grain	Fine to medium texture, grain always interlocked, sometimes very highly. Oily looking.	Fine to medium texture. Grain frequently interlocked, sometimes highly. Waxy or oily feel	Fine and even texture. Interlocked grain.	Moderately coarse textured but uniform. Predominantly straight grain
Density at 12% moisture	1050-1180 kg/m ³	1070 kg/m ³	850-950 kg/m ³	620-750 kg/m ³
Durability	Class 1. Highest natural durability. Min 25 years	Class 1. Highest natural durability. Min 25 years.	Class 2. Highly durable. Typical life of 15-25 yrs.	Class 3. Moderately durable. Typical life of 7-15 years.
Weathering properties	On exposure to sunlight, initially fades to a more uniform light brown. Very slight tendency to checking (surface cracking).	Has excellent weathering characteristics. On exposure to sunlight, gradually becomes uniform light brown or yellowish brown. Some tendency to checking (surface cracking in dry conditions)	On exposure to sunlight, initially darkens to a deeper shade of brown. Relatively high tangential/radial shrinkage ratio can result in a higher tendency to cupping in thin sections.	Some tendency to surface checking.
Resistance to decay and insect attack	Resistant to attack by decay fungi and termites. Not resistant to marine borers	Very resistant to brown rot & white rot fungi. Resistant to attack by termites.	Resistant to attack by decay fungi and termites.	Resistant to lyctid borer attack.
Hardness (relative)	Very Hard	Very hard	Hard	Moderate
Hardness (Janka)	16	15.5	6.9	7.5
Modulus of rupture	170 MPa	135 Mpa	100-142 MPa	122 MPa
Modulus of elasticity	21 GPa	18 Gpa	13.5 GPa	17 GPa
Maximum crushing strength	94 MPa	62 Mpa	42 MPa	66 MPa
Shrinkage	7% tangential 6% radial 1.2 tangential/radial shrinkage ratio	7.6% tangential 5.0% radial 1.6 tangential/radial shrinkage ratio	3.2-3.9% tangential 1.4-2.2% radial 1.8 tangential/radial shrinkage ratio	8.6% tangential 4.8% radial 1.8 tangential/radial shrinkage ratio
Machining	Moderately difficult to work - will blunt tools easily.	Difficult to saw and machine due to hardness but can be machined to a smooth surface.	Machines relatively well	
Applications	Excellent for all fully exposed exterior conditions.	Excellent for all fully exposed exterior conditions although in very dry conditions there may be a higher tendency for some surface cracking.	Suitable for fully exposed exterior conditions although in tropical or sub tropical situations can be a higher tendency for temporary cupping and surface cracking.	