

HANDYDECK DECKING TILES - LUMBER SPECIES COMPARISON

Common Name	IPE	TEAK	INDIAN ROSEWOOD	BANGKIRAI
Botanical name	<i>Tabebuia Lapacho</i>	<i>Dipteryx odorata</i>	<i>Dalbergia latifolia</i>	<i>Shorea sp.</i>
Wood colour	Olive brown to moderately dark brown, often with lighter or darker striping.	Brown yellow to reddish brown, with fine dark veins.	Dark purple brown with darker streaks and occasional lighter streaks.	Yellow brown, brown or brown with reddish tinge.
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	Moderately fine to coarse texture. Narrowly Interlocked grain.	Fine and even texture. Interlocked grain.
Density at 12% moisture	1050-1180 kg/m ³	1070 kg/m ³	750-850 kg/m ³	850-950 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 2. Highly durable. Typical life of 15-25 yrs.
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)	Once dry, the wood is exceptionally stable in service.	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.
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 attack by decay fungi and termites.
Hardness (relative)	Very Hard	Very hard	Hard	Hard
Hardness (Janka)	16	15.5	14.1	6.9
Modulus of rupture	170 MPa	135 Mpa	92-121 MPa	100-142 MPa
Modulus of elasticity	21 GPa	18 Gpa	10-11.9 GPa	13.5 GPa
Maximum crushing strength	94 MPa	62 Mpa	48-65 MPpa	42 MPa
Shrinkage	7% tangential 6% radial 1.2 tangential/radial shrinkage ratio	7.6% tangential 5.0% radial 1.6 tangential/radial shrinkage ratio	5.8% tangential 2.7% radial 2.1 tangential/radial shrinkage ratio	3.2-3.9% tangential 1.4-2.2% 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.	Moderately difficult to work	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 all kinds of constructional work due to its strength and durability. Also high-class furniture and cabinet making as a decorative wood.	Suitable for fully exposed exterior conditions although in tropical or sub tropical situations can be a higher tendency for temporary cupping and surface cracking.