

# TIMBER SPECIES COMPARISON - Typical Properties

Species	Residential Standard Sizes (mm)	Marine / Commercial Size Range (mm)	Length Spread	Durability*	Typical Properties						
					Density (kg/m3)**	Modulus of Rupture (MPa)		Modulus of Elasticity (GPa)		Hardness (Janka/kN)	
						Green	Dry	Green	Dry	Green	Dry
<b>Blackbutt</b> <i>(Eucalyptus Pilularis)</i>	—	✔ Typically 32 – 42 (thickness) × 90 – 200 (width)	Random Lengths typically 1.8m - 5.7m	Class 1	900	100	144	17	19	7.3	9.1
<b>Cumaru</b> <i>(Dipteryx odorata)</i>	✔ Smooth (S4S/E4E) 21 × 90 / 145		Random Lengths	Class 1	1100	132	188	18.3	26.6	—	13.7
<b>Garapa</b> <i>(Apuleia leiocarpa)</i>	✔ Smooth (S4S/E4E) 19 × 90 / 140 32 x 140	—	Random lengths only ranging from 1.8m - 4.8m and longer in some cases	Class 2	900	—	128	—	15.88	—	7.3
<b>Greenheart</b> <i>(Chlorocardium rodiei)</i>	—	✔ Typically 32 – 42 (thickness) x 90 - 200 (width)	Random Lengths typically 1.8m - 5.7m	Class 1	1100-1200	140	180	16	22	8.4	11
<b>Ipe</b> <i>(Handroanthus spp/ Tabebuia spp)</i>	✔ Smooth (S4S/E4E) 21 × 145		Random Lengths typically 1.8m - 5.7m	Class 1	1100	—	166	—	22	—	15.6
<b>Ironbark</b> <i>(Eucalyptus Paniculata)</i>	—		Random Lengths typically 1.8m - 5.7m	Class 1	1125	114	138	18	20	11	14
<b>Kwila</b> <i>(Intsia bijuga/ Intsia palembanica)</i>	✔ Grip Tread/Smooth (GT1/E4E) 19 × 90 / 140	—	Random Lengths typically 1.8m - 5.4m	Class 1-2	830 - 870	103	115	15	15.4- 18	7.6	8.6
<b>Purpleheart</b> <i>(Peltogyne spp)</i>	✔ Smooth (S4S/E4E) 19 × 65 / 90 / 140 42 × 65 / 90 / 140  Drydek 20 × 140	✔ 42 (thickness) x 90 - 200 (width)	Random Lengths typically 1.8m - 5.4m	Class 2	900-1100	105	147	14	17	9.2	11
<b>Spotted Gum</b> <i>(Corymbia maculata)</i>	✔ Smooth (S4S/E4E) 25 × 90 / 130	✔ Typically 32 – 42 (thickness) x 90 - 200 (width)	Random Lengths typically 1.8m - 5.4m	Class 1-2	950	99	150	18	23	8	11
<b>Tali</b> <i>(Erythrophleum suaveolens)</i>	✔ Smooth (S4S/E4E) 19 × 140		Random Lengths typically 1.8m - 5.7m	Class 1	900	—	154	—	19.4	—	13
<b>Vitex</b> <i>(Vitex cofassus)</i>	✔ Smooth (S4S/E4E) 19 × 90 / 125 / 140 32 x 140		Random spread, heavily from 1.8m - 3.6m	Class 2	700-800	80	113	12	14	5.1	5.6

\*Based on above ground applications; in-ground use reduces durability by one level. Durability classifications provide a useful comparative guide, however factors relating to specific installations and natural timber variation may result in some pieces falling outside the species' durability classification. Durability classification applies to heartwood only; sapwood is excluded.

\*\* Density (kg/m3) is an average indication only, measured at 12% moisture content (dry condition) and actual density may vary from piece to piece.

NOTES:

- The timber properties provided in this document are intended as guidelines only. Actual properties may vary depending on the origin, growth conditions, and other environmental factors affecting the timber. JSC has not conducted specific testing on the timber properties referenced. The figures quoted are sourced from the references cited in this document and should be used as a general guide only.

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» S4S: Smooth Four Sides / E4E: Eased Four Edges / GT1: Griptread One Side

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