

Hardwood Decking Comparison
Data Compiled From the USDA Forest Service, Forest Products Lab
<http://www.fpl.fs.fed.us/>

Trade Name	Cumaru	Ipe	Massaranduba	Merbau	Mangaris	Garapa*	Meranti	Redwood	Composite	Treated
Scientific Name	Dipteryx odorata	Tabebuia	Manilkara bidentata	Intsia bijuga	Shorea spp	Apuleia leiocarpa	Shorea spp	Sequoia sempervirens		
Type	Hardwood	Hardwood	Hardwood	Hardwood	Hardwood	Hardwood	Hardwood	Softwood	Man Made	Soft wood
Origin	S.America	S. America	S. America	Asia	Asia	S. America	Asia	N. America	Petrochemicals	Varies
Decay Resistance	High	High	High	NA	Varies	Varies	Medium Low	Medium	High	Varies
Termite Resistance	High	High	High	High	Varies	Medium	Low	Low	High	Varies
Marine Borer Resistance	High	Low	Low	Low	Low	Low	Low	Low	NA	Varies
Strength High	High	High	Medium High	Medium High	Medium High	Medium	Medium	Low	Low	Medium
Fire Rating Class	A	A	A	N/A	A	A	C	C	Varies	Varies
Specific Gravity	0.91	0.93	0.85	0.68	0.7	0.7	0.52	0.35	.8-1.25	
Bending Strength 12% psi	27,270	25,400	29,200	21,300	18,400	12,900	13,300	7,900	4,500	9000-14000
Janka Side Hardness 12%	3540	3680	3190	1925	1640	1654	825	420	1390	690

Durability Entries USDA Forest Service Fact Sheets:

Cumaru:

The timbers have a reputation for being very durable. Laboratory tests also show the heartwood to be very durable in resistance to both brown-rot and white rot fungi. The wood has excellent weathering characteristics.

Ipe:

Heartwood is very resistant to attack by decay fungi and termites; not resistant to marine borers. T.guayacan, is reported to have good resistance in Panama waters.

Massaranduba:

Very resistant to attack by decay fungi; highly resistant to subtropical termites and moderately resistant to dry-wood termites. Not resistant to marine borer attack.

Merbau:

Heartwood has an average service life of 6 years in Malayan stake tests but generally reputed to have good durability; highly resistant to termite attack. Sapwood prone to powder-post beetle attack

Mangaris:

Heartwood durability very variable and should be classified as nondurable. Sapwood is very susceptible to attack by powder-post beetle.

Garapa:

USDA Forest Service Fact Sheet Not Available.

Meranti:

Heartwood not durable in exposed conditions or in ground contact, liable to termite attack. Sapwood susceptible to powder-post beetle attack. Not resistant to marine borers.

Redwood:

Redwood is rated as resistant to very resistant to heartwood decay.