

hardwood deck species
types of wood technically compared

	Density 12%inkg/m³	Density (kg/m3)AD	Total Radial shrinkage(R%)	Tangential shrinkage(T%)	Tangential/ Radial shrinkage ratio	Modulus of Elasticity at 12%(N/mm2)	Janka hardness at 12%(kgf)	Durability
Angelim Pedra	680	1000	4.4	7.1	1.6	15100	7650	II
Angelim Vermelho	950	1050	5.7	9.5	1.7	16900	13500	I
Angico	850	1030	4.2	8.4	2.0	19200	1990	I
Aroeira	990	1220	3.7	7.5	2.0	15200	14170	I
Azobé	950	1200	7.2	10.2	1.4	18600	17000	I-II
balau	700	1150	4.6	10.4	2.3	15900	7300	II
Bangkirai	700	1150	4.6	10.4	2.3	15900	7300	II
Barauna	1030	1280	5.3	10.3	1.9	16000	21770	I
Basralocus	750	1100	5.5	8	1.5	16000	8400	II
Bilinga	660	900	4.7	7.8	1.7	13400	7250	I
Brazilian Cherry	750	1050	3	6.4	2.1	14900	10400	I
Cambara	530	700	3.6	8.7	2.4	10400	3900	III - IIII
Cedrinho	530	700	3.6	8.7	2.4	10400	3900	III - IIII
Cumarú	850	1200	5	7.6	1.5	20800	15700	I
Fava Amargosa	550	930	4.8	8.8	1.8	15200	8100	II - III
Garapa	750	950	4.4	8.5	1.9	14400	7400	II
Guariuba	770	1100	2.8	5.1	1.8	15700	6200	I
Ipé	950	1150	3.3	5.6	1.7	22000	16700	I
Iroko	470	850	3.3	5.1	1.5	10900	5600	I-II
iron wood	950	1150	3.3	5.6	1.7	22000	16700	I
Itaúba	700	1000	2.5	7.2	2.9	14000	5800	I
Jatoba	750	1050	3	6.4	2.1	14900	10400	I
Keruing	580	1020	7.2	11.3	1.6	21500	5830	III
Lapacho	950	1150	3.3	5.6	1.7	22000	16700	I
Mandioqueira	650	860	4.2	8.5	2.0	13400	6100	III
Massaranduba	900	1360	6.3	9.4	1.5	24700	14200	II
Meranti Red	500	900	3.8	7.3	1.9	11510	4310	III
Merbau	730	1000	3.2	5.4	1.7	15300	6700	I-II
Muiracatiara	650	1000	5.2	8.5	1.6	17300	9400	I
Pau d arco	950	1150	3.3	5.6	1.7	22000	16700	I
Piquia	810	930	5.2	8.8	1.7	14500	7700	II
Robinia	720	800	4.4	6.9	1.6	14200	7550	I - II
Sapucaia	1100	1400	5.1	7.9	1.5	23400	12900	I - II
Sirari	600	650	3.2	6.4	2.0	14800	7060	I - II
Sucupira	750	1100	4.9	7	1.4	19600	8750	II - III
Tarara	580	740	4	6.2	1.6	10000	10930	I
Tatajuba	700	900	5	6.2	1.2	17700	7700	I
Tigerwood	650	1000	5.2	8.5	1.6	17300	9400	I
Uchi torrado	950	1200	6.9	10.5	1.5	18500	13100	II
Yellow Balau	700	1150	4.6	10.4	2.3	15900	7300	II

Australia

Aroeira	990	1220	3.7	7.5	2.0	15200	14170	I
Barauna	1030	1280	5.3	10.3	1.9	16000	21770	I
Merbau	730	1000	3.2	5.4	1.7	15300	6700	I-II
Yellow Balu	700	1150	4.6	10.4	2.3	15900	7300	II

USA

Aroeira	990	1220	3.7	7.5	2.0	15200	14170	I
Barauna	1030	1280	5.3	10.3	1.9	16000	21770	I
Massaranduba	900	1360	6.3	9.4	1.5	24700	14200	II
Ipé	950	1150	3.3	5.6	1.7	22000	16700	I
Cambara	530	700	3.6	8.7	2.4	10400	3900	III - IIII
Sirari	600	650	3.2	6.4	2.0	14800	7060	I

Bolivian Mahogany

Western Europe									
Angelim Pedra	680	1000	4.4	7.1	1.6	15100	7650	II	
Aroeira	990	1220	3.7	7.5	2.0	15200	14170	I	
Bangkirai	700	1150	4.6	10.4	2.3	15900	7300	II	
Barauna	1030	1280	5.3	10.3	1.9	16000	21770	I	
Garapa	750	950	4.4	8.5	1.9	14400	7400	II	
Ipé	950	1150	3.3	5.6	1.4	22000	16700	I	
Massaranduba	900	1360	6.3	9.4	1.5	24700	14200	II	
Tatajuba	700	900	5	6.2	1.2	17700	7700	I	

Sources

mainieri, calvino, fichas de características de madeiras brasileiras. instituto de pesquisa tecnológicas/ divisão de madeiras. São Paulo 1989

laboratório de produtos florestais/ IBAMA. madeiras tropicais Brasileiras. Brasília 1997

chicinoud michele, deon gererd, detienne pierre, parant bernard, vantomme paul, atlas de maderas tropicales de América Latina.

organización internacional de las maderas tropicales/ centre technique forestier tropical 1990

© Roque Valente SRL – hardwood deck species