technology transfer fact sheet



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Tabebuia spp. (Roble group) Family: Bignoniaceae Roble Mayflower

Other Common Names: Roble (Spanish America), Amapa, Roble blanco (Mexico), Roble blanco, Roble de sabana (Costa Rica), Roble del rio (Colombia), Apamate (Venezuela).

Distribution: From the West Indies and southern Mexico to Venezuela and Ecuador. Inhabits various sites from wet lowlands to dry mountainsides.

The Tree: A medium-sized tree 40 to 60 ft high, but occasionally reaching a height of 90 ft; diameters commonly 18 to 24 in., sometimes reaching 36 in.; buttresses often extend to 10 ft above the ground; widely planted as an ornamental.

The Wood:

General Characteristics: Heartwood light brown to golden; not clearly differentiated from the sapwood. Luster low to medium; texture medium to rather coarse; grain straight to roey; without distinctive odor or taste when dry.

Weight: Basic specific gravity (ovendry weight/green volume) 0.52; air-dry density 40 pcf.

Mechanical Properties: (First two sets of data based on the 2-in. standard, the third set on the 1-in. standard.)

Moisture content	Bending strength Modulus of elasticity		Maximum crushing strength	
(%)	(Psi)	(1,000 psi)	(Psi)	
Green (74)	10,770	1,450	4,910	
12%	13,780	1,600	7,340	
Green (40)	9,600	1,620	5,030	
12%	12,500	1,750	6,010	
12% (41)	14,700	NA	7,050	

Janka side hardness for green wood 910 lb, 960 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 147 in.-lb (5/8-in. specimen).

Drying and Shrinkage: The wood air-seasons and kiln-dries rapidly with little or no checking and warping. Kiln schedule T6-D2 is suggested for 4/4 stock and T3-D1 for 8/4. Shrinkage from green to ovendry: radial 3.6%; tangential 6.1%; volumetric 9.5%.

Working Properties: The wood has excellent machining characteristics but some care required in planing to prevent torn and chipped grain. Finishes well, easy to glue. With care, cuts well into sliced veneer.

Durability: Both pure culture tests and field evaluations indicate the wood to be moderately durable to very durable; reported to be very susceptible to dry- wood termite attack and little resistance to marine borers.

Preservation: Penetration and absorption of preservative solutions are low, even in the sapwood. This may be improved somewhat by incising.

Uses: Flooring, furniture, cabinetwork, interior trim, tool handles, decorative veneers, boat building. For some applications suggested as a substitute for ash and oak.

Additional Reading: (40), (41), (46), (74)

40. Kynoch, W., and N. A. Norton. 1938. Mechanical properties of certain tropical woods chiefly from South America. Univ. of Mich. School of Forestry and Conservation Bull. No. 7.

- 41. Laboratorio Nacional de Productos Forestales. 1974. Características, propiedades, y usos de 104 maderas de los altos llanos occidentalis. Universidad de Los Andes, Merida.
- 46. Longwood, F. R. 1962. Present and potential commercial timbers of the Caribbean. Agriculture Handbook No. 207. U.S. Department of Agriculture.
- 74. Wangaard, F. F., and A. F. Muschler. 1952. Properties and uses of tropical woods, III. Tropical Woods 98:1-190.

From: Chudnoff, Martin. 1984. Tropical Timbers of the World. USDA Forest Service. Ag. Handbook No. 607.