Center for Wood Anatomy Research
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Magnolia spp.
Family: Magnoliaceae
Magnolia
Vaco

Other Common Names: Laurel sabino (Puerto Rico), Corpus, Elosuchil, Semiramis (Mexico), candelilo (Costa Rica), Vaco (Panama).

Distribution: Mexico, Central America, and the West Indies; mostly in the highlands.

The Tree: Tree heights are 70 to 100 ft with diameters occasionally up to 5 ft or more, commonly 3 ft. Boles are straight with clear lengths of 40 ft and more; sometimes buttressed.

The Wood:
General Characteristics: Heartwood olive green when freshly cut becoming light yellowish brown to greenish brown sometimes with a purplish tinge upon exposure; purple, dark brown, darkening somewhat on exposure. Texture fine and uniform; luster low to moderate; grain straight to interlocked; without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) varying with the species from 0.45 to 0.59; air-dry density 34 to 44 pcf.

Mechanical Properties: (2-in. standard.)

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
Green (74)	8,560	1,690	3,590
12%	14,250	1,970	7,850
12% (62)	11,500	1,450	_

Janka side hardness 860 lb for green material and 1,090 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 118 in.-lb. (5/8-in. specimen).

Drying and Shrinkage: All species are easy to air-season; the wood dries rapidly with no or slight warp and checking. No data available on kiln schedules. Shrinkage green to ovendry: radial 3.6%; tangential 7.0%; volumetric 11.2%.

Working Properties: The wood saws and machines easily, however in planning there may be considerable tearing where grain is irregular. M. sororum is reported to be fair to good in steam-bending quality.

Durability: Heartwood is rated durable to highly durable with respect to deterioration by both white-rot and brown- rot fungi but vulnerable to dry-wood termite attack.

Preservation: Heartwood is resistant to moisture absorption and is probably difficult to treat

Uses: Utility veneer and plywood, millwork, furniture and cabinet work, general interior and exterior construction, boat planking, and turnery.

Additional Reading:: (45), (62), (74)

45. Longwood, F.R. 1961. Puerto Rican woods: Their machining, seasoning, and related characteristics. Agriculture Handbook No. 205. U.S. Department of Agriculture.
62. Slooten, H.J. van der, I. Acosta-Contreras, and P.S. Aas. 1970. Maderas latinoamericans. III. Podocarpus standleyi, Podocarpus oleifolius, Drimys granadensis, Magnolia poasana, y Didymopanax pittieri. Turrialba 20(1):105-115.
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.