Technology Transfer Fact Sheet



Tabebuia spp.

(Lapacho group)

Family: Bignoniaceae

Ipe, Bethabara, Lapacho

Other Common Names: Amapa (Mexico), Cortez (Honduras, Nicaragua, Costa Rica), Guayacan (Panama), Guayacan polvillo (Colombia), Flor Amarillo (Venezuela), Greenhart (Surinam), Madera negra (Ecuador), Tahuari (Peru), Ipe (Brazil), Lapacho negro (Paraguay, Argentina).

Distribution: Throughout continental tropical America and some of the Lesser Antilles. The tree grows on a variety of sites, from ridge tops to riverbanks and marsh forests.

The Tree: May grow to 140 to 150 ft in height with trunk diameters of 6 ft. Frequently to heights of 100 ft and diameters of 2 to 3 ft. Boles are clear to 60 ft and more, with or without buttresses.

The Wood:

General Characteristics: Heartwood olive brown to blackish, often with lighter or darker striping, often covered with a yellow powder; sharply demarcated from the whitish or yellowish sapwood. Texture fine to medium; luster low to medium; grain straight to very irregular; rather oily looking; without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) 0.85 to 0.97; air-dry density 66 to 75 pcf.

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

Moisture content Bending strength Modulus of elasticity Maximum crushing strength

(%)	(Psi)	(1,000 psi)	(Psi)
Green (73)	22,560	2,920	10,350
12%	25,360	3,140	13,010
12% (24)	25,200	3,010	14,000
12% (44)	28,000	3,350	NA

Janka side hardness 3,060 lb for green material and 3,680 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 404 in.-lb. (5/8-in. specimen).

Drying and Shrinkage: Generally reported to air-dry rapidly with only slight checking and warping. Kiln schedule T3-C1 is suggested for 4/4 stock. Shrinkage green to ovendry: radial 6.6%; tangential 8.0%; volumetric 13.2%. Movement after manufacture is rated as small.

Working Properties: Moderately difficult to work especially with hand tools; has a blunting effect on cutting edges, finishes smoothly except where grain is very roey The fine yellow dust produced in most operations may cause dermatitis in some workers.

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