



Determa

Scientific Name: *Ocotea rubra*



Distribution: The Guianas, Trinidad, and the lower Amazon region of Brazil. Occasional to frequent on sandy or loamy soils in Guyana.

The Tree: Trees reach heights of 130 ft. with diameters to 5 ft.; usually 90 to 100 ft. high with diameters of 2 to 3 Ft.; boles are generally basally swollen and clear 40 to 80 ft.

General Characteristics: Heartwood light reddish brown with a golden sheen; well-defined sapwood, narrow, dull gray or pale yellowish brown. Texture rather coarse; grain in interlocked to straight; quartersawn lumber is sometimes attractively figured; dry wood is without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) 0.52 to 0.59; air-dry density 40 to 45 pcf.

Mechanical Properties: (First set of data based on the 2-in. standard; second set is based on the 2-cm standard.)

Moisture Content (%)	Bending Strength (Psi)	Modulus of Elasticity (1,000 Psi)	Max. Crushing Strength (Psi)
Green (74)	7,820	1,460	3,760
12%	10,470	1,820	5,800
Green (30)	10,300	1,450	5,150
12%	13,600	-	7,150

NOTE: duplicate values under "Moisture Content" represent multiple tests conducted at different times.

Janka side hardness 520 lb. for green material and 660 lb. at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 75 in.-lb. (5/8 in. specimen). Amsler toughness 137 in.-lb. at 15% moisture content (2-cm specimen).

Drying and Shrinkage: The wood is moderately difficult to air-season; drying at a moderate rate with slight checking and moderate warp. Kiln schedule T6-D2 is suggested for 4 / 4 stock and T3-D11 for 8/4; there is a tendency to warp and check in the kiln. Shrinkage green to ovendry; radial 3.7%; tangential 7.6%; volumetric 10.4%.

Working Properties: Works readily with hand and machine tools with little dulling effect; reported to glue readily and polishes fairly well.

Durability: Heartwood is rated durable to very durable in resistance to attack by white-rot and durable to a brown rot; moderately resistant to dry-wood termites; is similar to teak in resistance to marine borers. Weathering characteristics are excellent and the wood is highly resistant to moisture absorption.

Preservation: The heartwood is not treatable.

Uses: Furniture, general construction, boat planking, tanks and cooperage, joinery, heavy marine construction, turnery, parquet flooring, veneer and plywood is also suggested.