



Ocotea rubra

Family: Lauraceae

Determa

Red Louro

Other Common Names: Determa (Guyana), Wana, Wane (Surinam), Grignon rouge (French Guiana), Louro vermelho (Brazil).

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.

The Wood:

General Characteristics: Heartwood light reddish brown with a golden sheen; well-defined sapwood, narrow, dull gray or pale yellowish brown. Texture rather coarse; grain is 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 based on the 2-cm standard.)

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum 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
15%	13,600	NA	7,150

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-D1 for 8/4; there is a tendency to warp and check in the kiln. Shrinkage green to oven-dry: 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 cooerage, joinery, heavy marine construction, turnery, parquet flooring, veneer and plywood is also suggested.

Additional Reading: (10), (30), (46), (74)

10. British Guiana, Forestry Department. 1951. British Guiana timbers: Determa. Leaflet No. 7.

30. Instituto de Pesquisas Tecnologicas. 1956. Tabelas de resultados obtidos para madeiras nacionais. Bol. Inst. Pesqu. tec. Sao Paulo No. 31.

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.