



Andiroba / Crabwood

Scientific Name: Carapa guianensis



Distribution: Occurs in the West Indies from Cuba to Trinidad and from Honduras south through Central America, the Guianas, and into Brazil, Colombia, and Peru, and the overflow delta lands of the Orinoco in Venezuela; often occurs in pure stands; a lowland species but also at high altitudes along rivers.

The Tree: Commonly 80 to 100 ft. in height with diameters 2 to 3 ft.; sometimes attain diameters up to 6 ft. and heights of 170 ft. Buttresses are low, leaving a clear bole length of 50 ft. or more; main stems are straight and of good form.

General Characteristics: Heartwood is a light salmon to reddish brown when fresh, becoming darker when dry, color very variable; sapwood is pinkish turning pale brown or grayish, not always sharply demarcated from heartwood. Texture varies from fine to coarse; luster ranges from low to high; grain usually straight but sometimes roey; odor and taste lacking.

Weight: Basic specific gravity (ovendry weight/green volume) 0.78; air-dry density 58 pcf.

Mechanical Properties: Basic specific gravity (ovendry weight/green volume) 0.56; air-dry density 41 pcf.

Moisture Content (%)	Bending Strength (Psi)	Modulus of Elasticity (1,000 Psi)	Max. Crushing Strength (Psi)
Green (74)	11,110	1,560	4,930
12%	15,620	1,850	7,900
12%	15,500	2,080	8,540

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

Janka side hardness 1,060 lb. for green material and 1,220 lb. at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 130 in. lb. (5/8 in. specimen).

Drying and Shrinkage: Experience is variable, reported to air-season and kiln-dry rather slowly with a tendency to split, check, and collapse but without serious bowing or cupping; also reported to be only moderately difficult to air-dry with only slight checking and warp. Kiln schedule T3-C2 is suggested for 4/4 stock and T3-C1 for 8/4. Shrinkage green to ovendry: radial 3.1%; tangential 7.6%; volumetric 10.4. Movement in service is rated small.

Working Properties: Can be worked with machine and hand tools; reported to be somewhat harder to machine than mahogany; has a tendency to split when nailed; glues and screws well; peels well for veneer.

Durability: Very variable, laboratory tests report both high and low resistance to brown-and white-rot fungi; also variously reported to be resistant or poorly resistant to decay in the ground. Reported to be very susceptible to dry-wood termite attack; also vulnerable to powder-post beetle attack. Comparable to mahogany in weathering properties.

Preservation: Absorption is low and penetration is poor in heartwood treated by either pressure or nonpressure systems.

Uses: Suitable for all types of construction where durability is not a factor; furniture and cabinet work, flooring, joinery, millwork, veneer and plywood, and turnery.