



Lonchocarpus spp.

Family: Leguminosae

Black Cabbage-Bark

Sindjaple

Other Common Names: Machiche, Balche (Mexico), Chaperno (Guatemala, Costa Rica, Panama), Macaratu (Colombia), Guaimaro, Marajagua (Venezuela), Sindjaple (Surinam), Haiari (Guyana), Imbira de sapo, Timbo (Brazil), Barbasco (Peru).

Distribution: Throughout tropical America; generally on open hillsides and rather dry plains at low or moderate elevations. In Surinam occasional to locally frequent in high forests and marsh forests on alluvial flats.

The Tree:

Heights up to 100 ft with trunk diameters ranging from 16 to 40 in.; low buttressed with clear boles to 60 ft.

The Wood:

General Characteristics: Heartwood yellowish brown to dark reddish brown; sharply demarcated from the thick yellowish sapwood. Heartwood striped with rather fine uniform parenchyma laminations of lighter color. Texture moderately coarse; luster low to medium; grain straight to irregular or interlocked; without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) varying with species from 0.62 to 0.76; air-dry density from 46 to 58 pcf.

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

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
12% (24)	25,000	3,050	12,100
Green (30)	14,500	1,920	5,400
15%	19,400	NA	7,600
Green (42)	18,600	2,240	9,500
12%	25,400	2,440	12,900

Janka side hardness up to 2,700 lb at 12% moisture content. Forest Products Laboratory toughness up to 300 in.-lb at 12% moisture content (5/8-in. specimen).

Drying and Shrinkage: Varying with species, drying rate is rather slow to rather rapid. Reported to dry satisfactorily without excessive distortion or shrinkage if dried slowly. Kiln schedule T8-B3 is

suggested for 4/4 stock and T5-B1 for 8/4 (L. castilloi). Shrinkage green to oven-dry: radial 3.9%; tangential 8.2%; volumetric 13.0%. Movement is rated as medium.

Working Properties: in spite of its hardness, it is not particularly difficult to work; smooth planing, however, is difficult because of interlocked grain.

Durability: Varies considerably with species. L. castilloi reported to be very resistant to fungus and insect attack; L. hedyosmus, moderately resistant; and L. sericeus, susceptible to attack.

Preservation: Generally most species are difficult to treat using either open-tank or pressure-vacuum systems.

Uses: Heavy construction, flooring, furniture components. Durable species suggested for railroad cross-ties.

Additional Reading: (24), (30), (42), (72)

24. Food and Agriculture Organization. 1970. Estudio de reinversión para el desarrollo forestal de la Guyana Venezolana. Informe final. Tomo III. La madera del área del proyecto. FAO Report FAO/SF: 82 VEN 5. Rome.

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

42. Lavers, G. M. 1969. The strength properties of timbers. For. Prod. Res. Bull. No. 50. H. M. Stationery Office. London.

72. Vink, A. T. 1965. Surinam timbers: A summary of available information with brief descriptions of the main species of Surinam. Surinam Forest Service, Paramaribo.

From: Chudnoff, Martin. 1984. Tropical Timbers of the World. USDA Forest Service. Ag. Handbook No. 607.