



Myroxylon balsamum

Family: Leguminosae

Balsamo

Other Common Names: Balsamo, Palo de balsamo (Spanish America generally), Cedro chino, Nabal (Mexico), Chirraca, Sandalo (Costa Rica), Tache, Tolu (Colombia), Estoraque (Peru), Cabriuva vermelha (Brazil), Incienso, Quina (Argentina).

Distribution: Has a wide range from southern Mexico southward through Central American and continuing to Argentina.

The Tree: Up to 100 ft in height, usually 50 to 65 ft and 18 to 36 in. in diameter.

The Wood:

General Characteristics: Heartwood reddish brown becoming deep red or somewhat purplish upon exposure; fairly uniform to striped; sharply demarcated from the white sapwood. Luster medium to high; texture medium; grain is typically interlocked; without distinctive taste, but may have a pleasant spicy scent.

Weight: Basic specific gravity (ovendry weight/green volume) 0.74 to 0.81; air- dry density 54 to 62 pcf.

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

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
Green (30)	16,900	1,820	8,600
15%	19,200	NA	10,300
12% (20)	25,400	NA	13,400
Green (40)	17,270	2,130	8,200
12%	20,130	2,430	11,100

Janka side hardness 2,070 lb for green material and 2,200 lb at 12% moisture content. Amsler toughness 360 in.-lb at 15% moisture content (2-cm specimen).

Drying and Shrinkage: No information available on seasoning characteristics. Shrinkage from green to ovendry: radial 3.8%; tangential 6.2%; volumetric 10.0%. These values are very low for a wood of this high density.

Working Properties: It is reported to be moderately difficult to work but can be finished smoothly with a high natural polish. Though non-siliceous, there is more than the usual dulling of cutters.

Durability: The heartwood is reported to be highly resistant to attack by decay fungi.

Preservation: Both sapwood and heartwood are highly resistant to preservative treatments.

Uses: Flooring, furniture, interior trim, turnery, railroad cross-ties. The tree is well known for its yield of balsam used in perfumes, harvested mainly in El Salvador.

Additional Reading: (20), (30), (40), (56)

20. Falla Ramirez, A. 1971. Resultados de los estudios fisico-mecanicos de 41 especies maderables de la region Carare-Opon. Plegable Divulgativo, Division Forestal. INDERENA, Bogota.

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

40. Kynoch, W., and N. A. Norton. 1938. Mechanical properties of certain tropical woods chiefly from South America. Univ. of Mich. School of Forestry and Conservation Bull. No. 7.

56. Record, S. J., and R. W. Hess. 1949. Timbers of the new world. Yale University Press, New Haven, Conn.

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