Center for Wood Anatomy Research
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Bischofia javanica
Family: Euphorbiaceae
Bishopwood

Other Common Names: Gintungan, Paniala (India), Aukkyu, Ye-Padauk (Burma), Nhoi (Vietnam), Term (Thailand), Tuai (Philippines), Koka (Fiji).

Distribution: Widely distributed Indo-Malayan species extending into the Philippines Korea, and Polynesia. Common along streams at low and medium altitudes.

The Tree: May reach a height of 100 ft but bole seldom attaining a length of 25 ft; trunk diameters of 36 in. and more are common, reaching 60 in.; without buttresses.

The Wood:
General Characteristics: Heartwood purple red brown, darkening to a much deeper shade on exposure; sapwood light cream colored to reddish brown, rather distinct from the heartwood. Texture moderately fine to rather coarse; grain interlocked; slightly lustrous; without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) ranges from 0.45 to 0.71, averaging about 0.56; air-dry density 34 to 54 pcf.

Mechanical Properties: (2-in. standard)

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
Green (34)	6,920	860	3,610
12%	16,000	1,630	7,130
Green (11)	6,970	1,260	3,370
10%	14,190	1,690	8,560

Janka side hardness 915 lb for green material and 1,370 lb for dry. Forest Products Laboratory toughness 244 in.-lb green and 113 in.-lb at 12% moisture content (5/8-in. specimen).

Drying and Shrinkage: Generally reported as very difficult to season; severe warp and checking, tending to collapse and honeycomb. Material from Malaya reported to season rapidly with little degrade. No data on kiln schedules available. Shrinkage green to ovendry: radial 4.4%; tangential 9.8%.

Working Properties: Machining characteristics are rated as good, works to a smooth finish.

Durability: Heartwood moderately durable; but ratings vary from perishable in the Philippines to durable in the Fiji islands.

Preservation: Reports from Malaya indicate heartwood is non-treatable but absorption of 4 to 5 pcf were obtained in tests at Dehra Dun, India.

Uses: General construction (protected from the weather), flooring, furniture components. Good quality Kraft and soda pulps were prepared from this wood.

Additional Reading:: (9), (11), (34), (47)

9. Burgess, P. F. 1966. Timbers of Sabah. Sabah For. Rec. No. 6.
11. Desch, H. E. 1941-54. Manual of Malayan timbers. Malayan Forest Records No. 15.2 vol.
34. Lauricio, F. M., and S. B. Bellosillo. 1966. The mechanical and related properties of Philippine woods. The Lumberman 12(5):66 +A-H.
47. Pearson, R. S., and H. P. Brown. 1932. Commercial timbers of India. Gov. of India Central Publ. Br., Calcutta.

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