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)

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

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)