Wood Technical Fact Sheet

Goupia glabra

Kopie

Kabukalli

**Family:** Goupiae (Celastraceae)

**Other Common Names:** Sáino, Sapino (Colombia), Kopi (Surinam), Kabukalli (Guyana), Goupie (French Guiana), Cupiuba (Brazil).

**Distribution:** Uplands of the lower Amazon, the Guianas, and the Serrania de San Lucas, Carare-Opon, Rio Cauca Valley, and other regions of Colombia.

**The Tree:** A large buttressed, semi-deciduous, canopy tree; grows to a height of 130 ft and with diameters to 36 in., but usually 20 to 24 in.

**The Wood:**

**General Characteristics:** Heartwood light reddish brown, darkening superficially upon exposure; distinct but not sharply demarcated from thick brownish or pinkish sapwood Luster medium to rather high; texture medium to coarse; grain straight to interlocked; odor is fetid when fresh but dissipates upon drying though still apparent.

**Weight:** Basic specific gravity (ovendry weight/green volume) 0.72; air-dry density 54 pcf.
**Mechanical Properties:** (First two sets of data based on 2-in. standard; third set the 2-cm standard.)

<table>
<thead>
<tr>
<th>Moisture content</th>
<th>Bending strength</th>
<th>Modulus of elasticity</th>
<th>Maximum crushing strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>(%)</td>
<td>(Psi)</td>
<td>(1,000 psi)</td>
<td>(Psi)</td>
</tr>
<tr>
<td>Green (73)</td>
<td>11,480</td>
<td>1,810</td>
<td>6,170</td>
</tr>
<tr>
<td>12%</td>
<td>15,300</td>
<td>2,150</td>
<td>8,350</td>
</tr>
<tr>
<td>12% (24)</td>
<td>16,600</td>
<td>2,370</td>
<td>10,850</td>
</tr>
<tr>
<td>Green (48)</td>
<td>14,000</td>
<td>1,980</td>
<td>7,350</td>
</tr>
<tr>
<td>15%</td>
<td>17,600</td>
<td>NA</td>
<td>9,750</td>
</tr>
</tbody>
</table>

Janka side hardness about 1,400 lb for green material and 1,840 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 132 in.-lb (5/8-in. specimen).

**Drying and Shrinkage:** Moderately difficult to air-season, dries at a moderate rate with only slight warping and checking. Kiln schedule T7-B3 is suggested for 4/4 stock. Shrinkage from green to ovendry: radial 4.5%; tangential 8.0%; volumetric 12.6%.

**Working Properties:** It is rated fair to good in most operations but torn and chipped grain is common in planing because of interlocked grain. Coarser material requires filler to obtain a smooth finish.

**Durability:** Laboratory evaluations indicate good resistance to attack by both brown and white-rot fungi, but rated only slightly to moderately resistant to decay in field tests in Guyana. Resistant to dry-wood termite attack but has little resistance to marine borers.

**Preservation:** Heartwood is very resistant and sapwood is moderately resistant to preservation treatments using either open-tank or pressure-vacuum systems.

**Uses:** Heavy construction, industrial flooring, furniture components. A highly favored general purpose timber in the Guianas.

**Additional Reading:** (24), (48), (46), (73)