Tabebuia spp. (Lapacho group)
Family: Bignoniaceae
Ipe
Bethabarara
Lapacho

Other Common Names: Amapa (Mexico), Cortez (Honduras, Nicaragua, Costa Rica), Guayacan (Panama), Guayacan polvillo (Colombia), Flor Amarillo (Venezuela), Greenhart (Surinam), Madera negra (Ecuador), Tahuari (Peru), Ipe (Brazil), Lapacho negro (Paraguay, Argentina).

Distribution: Throughout continental tropical America and some of the Lesser Antilles. The tree grows on a variety of sites, from ridge tops to riverbanks and marsh forests.

The Tree: May grow to 140 to 150 ft in height with trunk diameters of 6 ft. Frequently to heights of 100 ft and diameters of 2 to 3 ft. Boles are clear to 60 ft and more, with or without buttresses.

The Wood:
General Characteristics: Heartwood olive brown to blackish, often with lighter or darker striping, often covered with a yellow powder; sharply demarcated from the whitish or yellowish sapwood. Texture fine to medium; luster low to medium; grain straight to very irregular; rather oily looking; without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) 0.85 to 0.97; air-dry density 66 to 75 pcf.

Mechanical Properties: (First and third sets of data based on the 2-in. standard, the second on the 1-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 (73)</td>
<td>22,560</td>
<td>2,920</td>
<td>10,350</td>
</tr>
<tr>
<td>12%</td>
<td>25,360</td>
<td>3,140</td>
<td>13,010</td>
</tr>
<tr>
<td>12% (24)</td>
<td>25,200</td>
<td>3,010</td>
<td>14,000</td>
</tr>
<tr>
<td>12% (44)</td>
<td>28,000</td>
<td>3,350</td>
<td>NA</td>
</tr>
</tbody>
</table>

Janka side hardness 3,060 lb for green material and 3,680 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 404 in.-lb. (5/8-in. specimen).

Drying and Shrinkage: Generally reported to air-dry rapidly with only slight checking and warping. Kiln schedule T3-C1 is suggested for 4/4 stock. Shrinkage green to ovendry: radial 6.6%; tangential 8.0%; volumetric 13.2%. Movement after manufacture is rated as small.
**Working Properties:** Moderately difficult to work especially with hand tools; has a blunting effect on cutting edges, finishes smoothly except where grain is very roey. The fine yellow dust produced in most operations may cause dermatitis in some workers.

**Durability:** Heartwood is very resistant to attack by decay fungi and termites; not resistant to marine borers. *T. guayacan* however, is reported to have good resistance in Panama waters.

**Preservation:** The wood is reported to be extremely resistant to preservation treatments.

**Uses:** Railroad crossties, heavy construction, tool handles, turnery, industrial flooring, textile mill items, decorative veneers.

**Additional Reading:** (24), (44), (46), (73)


