Peltogyne spp.
Family: Leguminosae
Purpleheart

Amaranth

Other Common Names: Palo morado (Mexico), Morado (Panama, Venezuela), Tananeo (Columbia), Koroboreli (Guyana), Purperhart (Surinam), Amarante (French Guiana), Pau roxo, Guarabu (Brazil), Violetwood (English trade).

Distribution: Center of distribution in the north-middle part of the Brazilian Amazon region; combined range of all species from Mexico through Central America and southward to southern Brazil.

The Tree: Trees grow to heights of 170 ft with diameters to 4 ft, but usually 1.5 to 3 ft; boles are straight, cylindrical, and clear 60 to 90 ft above buttresses up to 12 ft. high.

The Wood: General Characteristics: Heartwood brown when freshly cut becoming deep purple upon exposure, eventually turning to a dark brown sharply demarcated from the off-white sapwood. Texture medium to fine; luster medium to high, variable; grain usually straight, sometimes wavy, roey, or irregular; without distinctive odor or taste.

Weight: Basic specific gravity (ovendry weight/green volume) varies with species from 0.67 to 0.91; air-dry density 50 to 66 pcf.

Mechanical Properties: (First set of data based on the 2-in. standard; second on the 2-cm standard; third on the 1-in. standard.)

<table>
<thead>
<tr>
<th>Moisture content</th>
<th>Bending strength</th>
<th>Modulus of elasticity</th>
<th>Maximum crushing strength</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(%)</td>
<td>(Psi)</td>
<td>(1,000 psi)</td>
</tr>
<tr>
<td>Green (75)</td>
<td>13,690</td>
<td>2,000</td>
<td>7,020</td>
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<tr>
<td>12%</td>
<td>19,220</td>
<td>2,270</td>
<td>10,320</td>
</tr>
<tr>
<td>Green (30)</td>
<td>21,000</td>
<td>2,560</td>
<td>9,250</td>
</tr>
<tr>
<td>15%</td>
<td>26,700</td>
<td>NA</td>
<td>12,200</td>
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<tr>
<td>12% (24)</td>
<td>30,900</td>
<td>3,460</td>
<td>14,500</td>
</tr>
</tbody>
</table>
Janka side hardness ranges from 1,860 lb to 3,920 lb at 12% moisture content. Forest Products Laboratory toughness at 12% moisture content ranges from 157 to 398 in.-lb. (5/8-in. specimen).

**Drying and Shrinkage:** Reports vary, from air-dries easily to moderately difficult; dries slowly to fairly rapidly; with almost no degrade to some warping and splitting Kiln schedule T6-D2 is suggested for 4/4 stock and T3-D1 for 8/4. Shrinkage green to ovendry: radial 3.2%; tangential 6.1%; volumetric 9.9%. Stability after manufacture or movement is rated as small.

**Working Properties:** Moderately difficult to work with either hand or machine tools, dulls cutters, exudes a gummy resin when heated by dull tools; slow feed rates and specially hardened cutters are suggested. Turns smoothly, easy to glue, and takes finishes well.

**Durability:** Heartwood is rated as highly durable in resistance to attack by decay fungi; very resistant to dry-wood termites; but little resistance to marine borers.

**Preservation:** Heartwood is reported to be extremely resistant to impregnation with preservative oils; sapwood is permeable.

**Uses:** Turnery, marquetry, cabinets, fine furniture, parquet flooring, tool handles, heavy construction, shipbuilding, many specialty items (billiard cue butts, chemical vats, carving).

**Additional Reading:** (24), (30), (46), (75)