



# 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.)

| Moisture content (%) | Bending strength (Psi) | Modulus of elasticity (1,000 psi) | Maximum crushing strength (Psi) |
|----------------------|------------------------|-----------------------------------|---------------------------------|
| Green (75)           | 13,690                 | 2,000                             | 7,020                           |
| 12%                  | 19,220                 | 2,270                             | 10,320                          |
| Green (30)           | 21,000                 | 2,560                             | 9,250                           |
| 15%                  | 26,700                 | NA                                | 12,200                          |
| 12% (24)             | 30,900                 | 3,460                             | 14,500                          |

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 oven-dry: 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)

24. Food and Agriculture Organization. 1970. Estudio de preinversion para el desarrollo forestal de la Guyana Venezolana. Informe final. Tomo III. Las maderas del area del proyecto. FAO Report FAO/SF: 82 VEN 5. Rome.

30. Instituto de Pesquisas Tecnologicas. 1956. Tabelas de resultados obtidos para madeiras nacionais. Bol. Inst. Pesqu. tec. Sao Paulo No. 31.

46. Longwood, F. R. 1962. Present and potential commercial timbers of the Caribbean. Agriculture Handbook No. 207. U.S. Department of Agriculture.

75. Wangaard, F. F., W. L. Stern, and S. L. Goodrich. 1955. Properties and uses tropical woods, V. Tropical Woods No. 103:1-139.

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