



***Pinus patula* (plantation)**

**Family: Pinaceae**

**Patula Pine**

**Other Common Names:** Pino (generally in Latin America), Ocote (Mexico).

**Distribution:** Restricted to eastern Mexico from Tamaulipas to Oaxaca; a favored plantation species in Angola, Kenya, Tanzania, South Africa, and elsewhere in Africa. Planted as well in New Zealand, Australia, India, Brazil, and Argentina.

**The Tree:** Heights to 115 ft with trunk diameter of 18 to 60 in. are reported. Boles straight and cylindrical.

**The Wood:**

**General Characteristics:** Heartwood in plantation-grown material is not easily distinguishable from sapwood; one of the whitest of pines; growth rings distinct; comparatively non-resinous with little odor.

**Weight:** Basic specific gravity (ovendry weight/green volume) 0.40 to 0.50; air- dry density 30 to 38 pcf.

**Mechanical Properties:** (First two sets of data based on 2-cm standard (?);third on the 2-in. standard. Sources: Angola, Madagascar, Tanzania.)

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
12% (81)	14,200	NA	5,900
12% (81)	14,000	1,210	5,500
12% (81)	12,000	1,860	7,300

**Drying and Shrinkage:** Reports are variable; material from 30-to 40-year-old trees seasoned well with little degrade; dries rapidly. Air-drying from green (150 to 200% moisture content) to 20% required 2 to 3 weeks for 4/4 stock. Reported to kiln-dry rapidly without severe degrade. Kiln schedule similar to T13-C4S has been suggested for 4/4 stock. Shrinkage green to ovendry: radial 4.1%; tangential 7.9%; volumetric 12.6%.

**Working Properties:** Saws easily and dresses with only a slight tearing of grain around knots; does not bore, mortise, or turn smoothly. Takes and holds nails well and makes an excellent glue joint.

**Durability:** The wood is not resistant to fungus, insect, or termite attack; prone to blue stain.

**Preservation:** Reported to be easy to treat by open-tank and pressure-vacuum systems.

**Uses:** Particleboard, excelsior-cement panels, pulp and paper products, food containers, paneling; if juvenile cores are excluded, can be used for light construction, shingles (treated).

**Additional Reading:** (81)

81. Wormald, T. J. (Compiler). 1975. *Pinus patula*. Dep. For. Commonwealth For. Inst. Univ. Oxford Trop. For. Papers No. 7.

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