



**USDA Forest Service
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Wood Technical Fact Sheet

Pterocarpus soyauxii

African Padauk

Family: Leguminosae

Other Common Names: Mbe, Mbil (Cameroon), Ngula, Bosulu (Zaire).

Distribution: Central and tropical West Africa; common in dense equatorial rain forests, often in small groups.

The Tree: Reaches a height of 100 to 130 ft, bole straight, cylindrical, and clear to 70 ft; trunk diameters 2 to 4 ft, sometimes to 5 ft.

The Wood:

General Characteristics: Heartwood vivid red when freshly cut darkening to a purple brown on exposure; sapwood 4 to 8 in. wide, whitish to brown yellow, distinct. Texture coarse; grain straight to interlocked; lustrous; faint aromatic scent when freshly cut. Sawdust may cause respiratory problems.

Weight: Basic specific gravity (ovendry weight/green volume) 0.55 to 0.67; air- dry density 42 to 51 pcf.

Mechanical Properties: (2-cm standard)

Moisture content Bending strength Modulus of elasticity Maximum crushing strength

(%) (Psi) (1,000 psi) (Psi)

12% (46) 13,900 1,560 8,450

12% (46) 18,600 1,750 7,800

Amsler toughness 155 to 272 in.-lb at 12% moisture content (2-cm specimen).

Drying and Shrinkage: Dries very well with a minimum of degrade. Kiln schedule T10-D5S is suggested for 4/4 stock and T8-D4S for 8/4. Shrinkage green to oven-dry: radial 3.3%; tangential 5.2%; volumetric 7.6%. Movement in service is very small.

Working Properties: Saws well but requires slow feed, easy to machine but with some tearing of interlocked grain, takes a good finish, glues easily and holds nails and screws satisfactorily.

Durability: Heartwood is very durable and very resistant to termite attack. Excellent weathering properties.

Preservation: Heartwood fairly resistant to preservative treatments; sapwood moderately resistant.

Uses: Fine joinery, fancy turnery, carvings, flooring, decorative veneer, tool and knife handles.

Additional Reading: (3), (9), (46)

3. Bolza, E., and W. G. Keating. 1972. African timbers-the properties, uses, and characteristics of 700 species. CSIRO. Div. of Build. Res., Melbourne, Australia.

9. Farmer, R. H. 1972. Handbook of hardwoods. H. M. Stationery Office. London.

46. Sallenave, P. 1964. Proprietes physiques et mecaniques des bois tropicaux. Premier Supplement. Centre Tech. For. Trop. No. 23.

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