



USDA Forest Service
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Wood Technical Fact Sheet

Guibourtia arnoldiana

Mutenye

Benge

Family: Leguminosae

Other Common Names: Benge, Mbenge (Zaire).

Distribution: West Central Africa.

The Tree: Reaches a height of about 75 to 100 ft; bole irregular, to 60 ft in length; trunk diameters to 3 ft; usually buttressed.

The Wood:

General Characteristics: Heartwood pale yellowish brown to medium brown, sometimes with a reddish tinge, with gray to almost black striping; sapwood dull gray with a yellowish cast, distinct. Texture moderately fine and fairly even; grain straight interlocked, gum pockets sometimes present.

Weight: Basic specific gravity (ovendry weight/green volume) about 0.64; air-dry density 50 pcf.

Mechanical Properties: (2-cm standard)

Moisture content Bending strength Modulus of elasticity Maximum crushing strength

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

12% (47) 21,400 2,040 11,400

12% (47) 22,300 3,100 12,200

Amsler toughness 244 to 510 in.-lb at 12% moisture content (2-cm specimen).

Drying and Shrinkage: Reported to season well if care is taken, though liable to some warping and checking. Kiln schedule T3-C2 is suggested for 4/4 stock and T3-C1 for 8/4. Shrinkage green to oven-dry: radial 4.6 to 5.8%; tangential 8.0 to 9.2%; volumetric 10.5 to 14.7%. Movement in service is rated as medium.

Working Properties: Though hard and heavy, works well with hand and machine tools, picking of interlocked grain in planing, veneers well but bolts must be preheated. Reported that silica may cause rapid dulling of cutters, but also reported to be nonsiliceous.

Durability: Heartwood reported to be moderately durable and moderately resistant to termite attack.

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

Uses: Turnery, flooring, furniture components, decorative veneer.

Additional Reading: (3), (9), (47)