



**USDA Forest Service
Forest Products Laboratory
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Wood Technical Fact Sheet

Millettia spp.

Panga Panga

Wenge

Family: Leguminosae

Other Common Names: Millettia laurentii: Wenge (Zaire), Awong (Cameroon). Millettia stuhlmannii: Panga panga, Mpande (Tanzania).

Distribution: Southern regions of Tanzania and Mozambique, found in open forests. Wenge occurs in the Congo region in periodically inundated swampy forests.

The Tree: Varies with species, about 60 to 90 ft; bole usually straight and unbuttressed; trunk diameters 3 to 4 ft.

The Wood:

General Characteristics: Heartwood dark brown to almost black with alternate layers of light and dark tissue forming a decorative figure; sapwood yellowish white, clearly demarcated. Texture rather coarse; grain straight.

Weight: Basic specific gravity (ovendry weight/green volume) 0.65 to 0.78; air-dry density 50 to 60 pcf.

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

Moisture content Bending strength Modulus of elasticity Maximum crushing strength

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

12% (5) 16,200 1,970 9,950

12% (46) 28,400 2,530 14,500

12% (44) 17,700 NA 10,200

Janka side hardness for dry material 1,630 lb. Amsler toughness 300 to 475 in.-lb. 12% moisture content (2-cm specimen).

Drying and Shrinkage: Panga panga seasons well and rather rapidly with little degrade. Wenge rather slowly but also without much distortion. Kiln schedule T6-D2 is suggested for 4/4 stock and T3-D1 for 8/4. Panga panga shrinkage green to ovendry: radial 3.1%; tangential 5.8%. Movement in service is rated as small.

Working Properties: Sawing and machining somewhat difficult, rapid blunting of cutting edges occurs, turns well, difficult to glue if resinous.

Durability: Heartwood is rated as very durable and resistant to termite attack.

Preservation: Heartwood extremely resistant to impregnation; sapwood moderately resistant to permeable.

Uses: Parquet or strip flooring, joinery, general construction, specialty items. Wenge is used as a hickory substitute in sporting goods, also for decorative veneer.

Additional Reading: (3), (5), (44), (46)