



Khaya grandifoliola* and *K. senegalensis

Family: Meliaceae

African Mahogany

Benin Mahogany

Senegal Mahogany

Other Common Names: Diala-iri (Ivory Coast, Ghana), Akuk, Ogwango (Nigeria), Eri Kiree (Uganda), Bandoro (Sudan). Often marketed together with K. ivorensis and K. anthotheca.

Distribution: West tropical Africa from the Guinea Coast to Cameroon and extending eastward through the Congo basin to Uganda and parts of Sudan. Often found in the fringe between the rain forest and the savanna.

The Tree: Reaches a height of 100 to 130 ft, boles sometimes twisted or crooked with low branching; trunk diameters above buttresses 3 to 5 ft.

The Wood:

General Characteristics: Heartwood fairly uniform pink- to red brown darkening to a rich mahogany brown; sapwood is lighter in color, not always sharply defined. Texture moderately coarse; grain straight, interlocked, or irregular; without taste or scent.

Weight: Basic specific gravity (ovendry weight/green volume) about 0.55 to 0.65; air dry density 42 to 50 pcf.

Mechanical Properties: (2-cm standard)

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
Green (40)	10,000	1,320	5,200
12%	14,100	1,540	8,000
12% (44)	13,800	NA	8,200

Janka side hardness 1,170 lb for green and 1,350 lb for dry material. Amsler toughness 190 in.-lb at 12% moisture content (2-cm specimen).

Drying and Shrinkage: Dries rather slowly but fairly well with little checking or warp. Kiln schedule T2-D4 is suggested for 4/4 stock and T2-D3 for 8/4. Shrinkage green to 12% moisture content: radial 2.5%; tangential 4.5%. Movement in service is rated as small.

Working Properties: Good working properties with hand and machine tools. Material with irregular grain difficult to dress to a smooth surface. Turns well, good nailing and gluing properties.

Durability: Heartwood moderately durable; trees and logs liable to attack by longhorn and buprestid beetles; resistant to termites. Sapwood liable to powder- post beetle attack.

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

Uses: Furniture and cabinetwork, joinery, shop fixtures, flooring, boatbuilding, decorative veneers.

Additional Reading: (3), (9), (40), (44)

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.

40. Lavers, G. M. 1967. The strength properties of timbers. For. Prod. Res. Bul. No. 50. H. M. Stationery Office. London.

44. Sallenave, P. 1955. Proprietes et mecaniques des bois tropicaux de l'union Francaise. Pub. Centre Tech. For. Trop. No. 8.

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