



USDA Forest Service
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Wood Technical Fact Sheet

Chlorophora excelsa and C. regia

Iroko

Family: Moraceae

Other Common Names: Semli (Sierra Leone, Liberia), Odoum (Ghana, Ivory Coast), Rokko, Oroko (Nigeria), Abang, Mandji (Cameroon, Gabon), Mereira (Angola), Kambala (Zaire), Mvule (East Africa).

Distribution: The two species, between them, extend across the entire width of tropical Africa. C. regia limited to the extreme west of Africa from Gambia to Ghana and is less drought resistant.

The Tree: May reach a height of 160 ft, bole straight, cylindrical and clear to 80 ft, small buttresses sometimes present.

The Wood:

General Characteristics: Heartwood varies from a pale yellowish brown to dark chocolate brown with lighter markings most conspicuous on flat-sawn surfaces; sapwood yellowish white, clearly demarcated. Texture medium to coarse; grain typically interlocked, sometimes irregular; slightly greasy feel; without odor; wet sawdust may cause dermatitis; occasional large "stone" deposits of calcium carbonate.

Weight: Basic specific gravity (ovendry weight/green volume) 0.55; air-dry density about 43 pcf.

Mechanical Properties: (2-cm standard)

Moisture content Bending strength Modulus of elasticity Maximum crushing strength
(%) (Psi) (1,000 psi) (Psi)

Green (9) 10,700 1,200 5,120

12% 13,100 1,360 7,910

12%(44) 11,200 NA 8,450

12%(44) 13,800 NA 7,150

Janka side hardness 1,080 lb for green and 1,260 lb for dry material. Amsler toughness 166 to 248 in.-lb for dry material (2-cm specimen).

Drying and Shrinkage: Dries rapidly with little or no degrade. Kiln schedule T6-D2 is suggested for 414 stock and T3-D1 for 8/4. Shrinkage green to oven-dry: radial 2.8%; tangential 3.8%; volumetric 8.8%. Movement in service is rated as small.

Working Properties: Works fairly easily with hand or machine tools but with some tearing of interlocked grain; occasional deposits of calcium carbonate severely damage cutting edges; good nailing and gluing characteristics; moderate steam-bending properties; may cause dermatitis in working wet wood.

Durability: Heartwood is very durable and is resistant to termite and marine borer attack as well. Sapwood liable to powder-post beetle attack.

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

Uses: Suggested as a teak substitute. Joinery, boatbuilding, piling and marine work, domestic flooring, furniture, veneer, railroad cross-ties, cabinetwork, shop fittings.

Additional Reading: (3), (8), (9), (44)