

Bubinga

(*Guibourtia tessmannii*)



Common Names:

Akume, Bingbinga, Bubinga, Essingang, Kevazingo, Ovang, Waka



Mechanical Values

Category	Green	Dry	Units
Weight	65	55	lbs/cu.ft.
Density (air-dry)		58	lbs/cu.ft.
Specific Gravity		0.88	
Hardness		65	lbs
Stiffness		2290	1000 psi
Bending Strength		22293	psi
Shearing Strength			psi
Max. Crushing Strength		10010	psi
Work to Maximum Load			in-lbs/in ³
Radial Shrinkage (G->OD)		5	%
Tangential Shrink. (G->OD)		9	%
Volumetric Shrink (G->OD)			%

Environmental Profile

The population of the species within its natural habitat has not been officially assessed.

Distribution

The growth range of the species is reported to be Camerouns, Gabon, and the Ivory Coast. The species is also reported to grow in Zaire.

Product Sources

Some material from this species is reported to be available from environmentally responsible or sustainably managed sources. The International Tropical Timber Organization (ITTO) reports that the species is a regular source of timber for export. Bubinga is reported to be available in lumber form on the US market. Imported logs are reported to be massive, and may weigh as much as 10 tons. The following species in the database is reported to have similar properties to Bubinga: Muiracataria (*Astronium leicointei*) The following species in the database has been suggested as a good substitute for Bubinga: Pao rosa (*Swartzia fistuloides*)

Tree Data

The trees are reported to be large, often reaching heights of more than 100 feet (30 m) and trunk diameters of 36 inches (90 cm). Boles are usually well-formed, and are 30 to 60 feet (9 to 18 m) long.

Sapwood Color

The sapwood is whitish in color.

Heartwood Color

The heartwood is medium red-brown or red to reddish-brown in color, with lighter red to purple veins. Upon exposure, the wood becomes yellow or medium brown with a reddish tint, and the veining becomes less conspicuous.

Grain

The grain may be straight or interlocked. Logs with very irregular grain are rotary cut into veneers called Kevasingo .

Texture

Texture ranges from fine to very fine, and is even.

Odor

There is an unpleasant odor which is noticeable when the material is freshly cut.

Ease of Drying

The wood dries easily with little degrade. Gum exudation may present some difficulties.

Drying Defects

The timber may distort if it is not seasoned slowly.

Movement in Service

The timber is reported to be dimensionally stable, and retains its shape well after manufacture.

Natural Durability

The heartwood is reported to be naturally resistant to decay, attack by termites and most xylophagous beetles, but logs are reported to require prompt removal from the forest and some form of protection against attack by insects.

Resistance to Impregnation

The heartwood is reported to respond poorly to preservative treatment, but the sapwood has good absorption properties, with adequate retention.

Veneering

Some logs are reported to be mainly from Gabon, are highly figured and are converted into attractive veneers for decorative applications such as, panelling, inlay work, high class furniture, and fancy turnery work.

Blunting

The wood exerts moderate to severe blunting effect on cutters.

Resistance to Cutting

Bubinga is hard and heavy, but it is reported to saw slowly but readily.

Planing

A reduced planing angle of 15 degrees is recommended to prevent irregular and interlocked grain from tearing or picking up.

Turning

The stock is reported to turn well, despite its hardness.

Boring

Boring properties are reported to be good.

Routing and Recessing

The wood routs and recesses generally well.

Mortising

The material is reported to respond well to mortising operations.

Moulding

The wood is reported to mould well, but irregular and interlocked grain may cause pick-up and tearing if cutting angles are not reduced to 15 degrees.

Carving

Carving properties are reported to be generally good.

Gluing

Gluing qualities are reported to be rather poor because of gum pockets.

Nailing

The timber is reported to take require pre-boring in nailing operations.

Screwing

Pre-boring required before screwing.

Sanding

The wood is reported to sand well.

Polishing

The wood is reported to take an excellent polish.

Staining

The material is reported to stain easily.

Painting

The timber is reported to varnish satisfactorily.

Response to Hand Tools

Generally works well with hand tools.

Strength Properties

Four fairly well known species, all native to Africa, are reported to be represented by the genus *Guibourtia*. The species are reported to be botanically similar but are very different in color. The most plentiful is *Bubinga*, produced by *G. tessmannii*, and *G. pellegriniana*. The rest are *Benge* or *Mutenye* which is produced by *G. arnoldiana*, *Ovankol* or *Ehie* from *G. ehie*, and *Rhodesian copalwood* from *G. coleosperma*, which is reported to be less plentiful in international trade.