

BUBINGA



Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)
Scientific name(s): *Guibourtia demeusei*
Guibourtia pellegriniana
Guibourtia tessmannii
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked Grain: slight
Note:

Wood pink or reddish brown, with some fine purplish red veins. Some brown veins. Grain sometimes wavy.

LOG DESCRIPTION

Diameter: 35 – 59 inches
Thickness of Sapwood: 1 – 3 inches
Floats: no
Log Durability: moderate (treatment recommended)

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	<u>Mean</u>	<u>Std. Dev.</u>
Specific Gravity*:	0.92	0.12
Janka Hardness (lbs):	2,410	
Volumetric Shrinkage:	0.62%	0.15%
Total Tangential Shrinkage (TS):	7.9%	2.0%
Total Radial Shrinkage (RS):	5.5%	1.0%
TS/RS Ratio:	1.4	
Fiber Saturation Point:	24%	
Stability:	poorly stable	

MECHANICAL/ACOUSTIC

	<u>Mean</u>
Crushing Strength*:	11,023 lbf
Static Bending Strength*:	19,870 lbf
Modulus of Elasticity*:	2,926,861 lbf

Musical Quality Factor: 111.9 measured at 2613 Hz

**At 12% moisture content.*

NATURAL DURABILITY AND TREATABILITY

Fungi and termite resistance refers to end-uses under temperate climate. Except for special comments on sapwood, natural durability is based on mature heartwood. Sapwood must always be considered as non-durable against wood degrading agents. E.N. = Euro Norm

Funghi (According to E.N. standards):	class 2 - durable
Dry Wood Borers:	class D - durable (sapwood demarcated, risk limited to sapwood)
Termites (According to E.N. standards):	class D - durable
Treatability (according to E.N. standards):	class 4 - not permeable
Use class ensured by natural durability:	class 4 – in ground or fresh water contact
Species covering the use class 5:	no

Note:

This species is listed in the European standard NF EN 350-2.

According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	does not require any preservative treatment
In case of risk of temporary humidification:	does not require any preservative treatment
In case of risk of permanent humidification:	does not require any preservative treatment

DRYING

Drying Rate:	slow
Risk of Distortion:	high risk
Risk of Casehardening:	no
Risk of Checking:	high risk
Risk of Collapse:	no
Possible Drying Schedule:	4

M.C. (%)	Dry-Bulb	Wet-Bulb	Air Humidity (%)
Green	107.6	102.2	82
50	118.4	109.4	74
40	118.4	109.4	74
30	118.4	109.4	74
15	129.2	114.8	63

Temperature (°F)

This schedule is given for information only and is applicable to thickness lower or equal to 1.5 in. It must be used in compliance with the code of practice. For thickness from 1.5 to 3 in, the air relative humidity should be increased by 5% at each step. For thickness over 3 in, a 10% increase should be considered.

SAWING AND MACHINING

Blunting Effect:	fairly high
Sawteeth Recommended:	stellite-tipped
Cutting Tools:	tungsten carbide
Peeling:	no information available
Slicing:	good
Note:	Requires power. Care is needed in presence of interlocked grain. Very decorative veneers.

ASSEMBLING

Nailing/Screwing:	good but pre-boring necessary
Gluing:	correct (for interior only)
Note:	Gluing must be done with care (dry wood and smooth surface).

END-USES

Cabinetwork (high class furniture)
Sliced Veneer
Furniture or Furniture Components
Flooring
Interior Paneling
Seats
Sleepers
Heavy Carpentry
Stairs (inside)
Turned Goods
Interior Joinery
Exterior Joinery
Vehicle or Container Flooring

MAIN LOCAL NAMES

<u>Country</u>	<u>Local Name</u>
Cameroon	Bubinga, Essingang
Congo	Lianu
Gabon	Kevazingo, Ebana
Democratic Republic Congo	Waka
Equatorial Guinea	Oveng
USA	Akume, Bubinga

Works Cited:

CIRAD'S *Biomass, Wood, Energy, Bioproducts Research Unit (BioWooEB)*
Meier, E. (2015), Wood, United States of America