

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)
Scientific name(s): Microberlinia brazzavillensis
Microberlinia bisulcata
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light brown
Sapwood: clearly demarcated
Texture: coarse
Grain: interlocked
Interlocked Grain: slight
Note: Wood is yellow brown to light brown, with dark brown veins. Sometimes highly interlocked grain.

LOG DESCRIPTION

Diameter: 23.6– 39.4 inches
Thickness of Sapwood: 2.36– 3.94 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*:	0.79	0.03
Janka Hardness (lbs):	1,830	
Volumetric Shrinkage:	0.56%	0.07%
Total Tangential Shrinkage (TS):	11%	
Total Radial Shrinkage (RS):	8.8%	
TS/RS Ratio:	1.3	
Fiber Saturation Point:	30%	
Stability:	Moderately stable	

MECHANICAL/ACOUSTIC

	<u>Mean</u>
Crushing Strength*:	8,992 lbf
Static Bending Strength*:	15,954 lbf
Modulus of Elasticity*:	2,541,061 lbf
Musical Quality Factor:	82.6 measured at 2632 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 3 – moderately durable
Dry Wood Borers:	class D - durable (sapwood demarcated, risk limited to sapwood)
Termites (According to E.N. standards):	class M – moderately durable
Treatability (according to E.N. standards):	class 3 - poorly permeable
Use class ensured by natural durability:	class 2 – inside or under cover (dampness possible)
Species covering the use class 5:	no

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

DRYING

Drying Rate: slow
Risk of Distortion: high risk
Risk of Casehardening: no
Risk of Checking: high risk
Risk of Collapse: no
Note: Sawn woods must be properly stacked, dried slowly and preferably in quarter sawn in order to reduce distortions.

Possible Drying Schedule: 5

M.C. (%)	Temperature (°F)		Air Humidity (%)
	Dry-Bulb	Wet-Bulb	
30	122	113	94
25	131	116.6	82
20	158	131	74
15	167	136.4	74

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: normal
Sawteeth Recommended: ordinary or alloy steel
Cutting Tools: tungsten carbide
Peeling: not recommended or without interest
Slicing: good
Note: Risk of tearing in presence of highly interlocked grain.

ASSEMBLING

Nailing / screwing: good but pre-boring is necessary
Gluing: correct

END-USES

Cabinetwork (high class furniture)
Sliced veneer
Current furniture or furniture components
Turned goods
Tool handles (resilient woods)
Interior paneling
Wood-ware
Wood frame house

MAIN LOCAL NAMES

<u>Country</u>	<u>Local Name</u>
Cameroon	Allen Ele
Germany	Zebrano
United Kingdom	Zebrawood, Zebrano
Gabon	Zingana

Works Cited:

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