

OBECHE (AYOUS)



Family: MALVACEAE (angiosperm)
Scientific name(s): Triplochiton scleroxylon
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light yellow
Sapwood: not demarcated
Texture: medium
Grain: straight or interlocked
Interlocked Grain: slight

Note: Black holes, brittle heart, ring shakes and grub holes in some logs. Yellowish white to light yellow, heartwood sometimes darker. Ribbon-like aspect on quartersawn. Grain sometimes irregular.

LOG DESCRIPTION

Diameter: 23.6 – 55 inches
Floats: yes
Log Durability: low (must be treated)

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*:	0.38	0.05
Janka Hardness (lbs):	430	
Volumetric Shrinkage:	0.36%	0.11%
Total Tangential Shrinkage (TS):	5.0%	0.5%
Total Radial Shrinkage (RS):	2.9%	0.4%
TS/RS Ratio:	1.7	
Fiber Saturation Point:	29%	
Stability:	Moderately stable to stable	

MECHANICAL/ACOUSTIC

	<u>Mean</u>
Crushing Strength*:	4,351 lbf
Static Bending Strength*:	7,541 lbf
Modulus of Elasticity*:	1,052,974 lbf
Musical Quality Factor:	111.2 measured at 2468 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 5 - not durable
Dry Wood Borers:	susceptible – sapwood not or slightly demarcated (risk in all the wood)
Termites (According to E.N. standards):	class S – susceptible
Treatability (according to E.N. standards):	class 3 - poorly permeable
Use class ensured by natural durability:	class 1 – inside (no dampness)
Species covering the use class 5:	no

Note: This species is listed in the European standard NF EN 350-2. Poorly to moderately permeable to preservative treatment. Prone to blue stain and dote.

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

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DRYING

Drying Rate: rapid
Risk of Distortion: no risk or very slight risk
Risk of Casehardening: no
Risk of Checking: no risk or very slight risk
Risk of Collapse: no
Note: During air drying, it is recommended to use large spacer sticks to allow good air circulation.

M.C. (%)	Temperature (°F)		
	Dry-Bulb	Wet-Bulb	Air Humidity (%)
Green	140	132.8	82
30	154.4	136.4	74
20	165.2	140	74
15	176	141.8	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: ordinary
Peeling: good
Slicing: good
Note: Tends to crumble when machining end grain and tends to tear in mortising (it is recommended to keep sharp edges and to reduce the cutting angle.) Filling recommended.

ASSEMBLING

Nailing / screwing: poor
Gluing: correct
Note: Gluing must be done carefully: absorbent wood.

END-USES

Moulding
Veneer for back or face of plywood
Boxes and crates
Interior paneling
Blockboard
Matches
Pencils
Veneer for interior of plywood
Current furniture or furniture components
Interior joinery
Fiber or particle boards
Sculpture
Sliced veneer

Note: Substitute for POPLAR (*Populus spp.*) for several end-uses: light furniture, paneling, etc...

Works Cited:

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

MAIN LOCAL NAMES

<u>Country</u>	<u>Local Name</u>
Benin	Xwetin
Cameroon	Ayus, Ayous
Ivory Coast	Samba
Ghana	Wawa
Equatorial Guinea	Ayus, Ayous
Nigeria	Obeche, Arere
France	Ayous, Samba
Congo	Eguess
Germany	Abachi
Central African Republic	M'Bado, Bado
United Kingdom	Obeche, Ayous, Wawa