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Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Oxystigma oxyphyllum

Pterygopodium oxyphyllum (synonymous)

Oxystigma mannii
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

LOG DESCRIPTION

Color: red brown Diameter: from 70 to 120 cm
Sapwood: clearly demarcated Thickness of sapwood: from 6 to 10 cm

Texture: coarse Floats: yes

Grain: straight or interlocked Log durability: moderate (treatment recommended)

Interlocked grain: slight

Note: Some logs are not floatable.

Heartwood copper red brown with blackish veins. Blackish resin exudation.

PHYSICAL PROPERTIES

MECHANICAL AND ACOUSTIC 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>	Std dev.		Mean	Std dev.
Specific gravity *:	0,64	0,03	Crushing strength *:	58 MPa	6 MPa
Monnin hardness *:	2,9	0,4	Static bending strength *:	88 MPa	13 MPa
Coeff. of volumetric shrinkage:	0,45 %	0,04 %	Modulus of elasticity *:	14960 MPa	950 MPa
Total tangential shrinkage (TS):	7,5 %	0,6 %			
Total radial shrinkage (RS):	3,9 %	0,5 %	(*: at 12% moisture cor	ntent, with 1 M	$Pa = 1 N/mm^2$
TS/RS ratio:	1,9				
Fiber saturation point:	28 %		Musical quality factor:	122,6 measure	d at 2613 Hz
Stability:	stable				

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: durable - sapwood demarcated (risk limited to sapwood)

Termites (according to E.N. standards): class M - moderately durable

Treatability (according to E.N. standards): class 3-4 - poorly or not permeable

Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)

Species covering the use class 5: No

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

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

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DRYING

Drying rate: normal

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: slight risk Risk of collapse: no Possible drying schedule: 2

Temperature (°C)							
	M.C. (%)	dry-bulb	wet-bulb	Air humidity (%)			
	Green	50	47	84			
	40	50	45	75			
	30	55	47	67			
	20	70	55	47			
	15	75	58	44			

This schedule is given for information only and is applicable to thickness lower or equal to 38 mm.

It must be used in compliance with the code of practice.

For thickness from 38 to 75 mm, the air relative humidity should be increased by 5 % at each step.

For thickness over 75 mm, a 10 % increase should be considered.

SAWING AND MACHINING

Blunting effect: normal

Sawteeth recommended: ordinary or alloy steel

Cutting tools: ordinary

Peeling: good

Slicing: nood

Note: Resin tends to clog tools. Irritant sawdust

ASSEMBLING

Nailing / screwing: good

Gluing: correct

Note: Gluing requires care due to resin exudation.

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to SATA grading rules (1996)

For the "General Purpose Market":

Possible grading for square edged timbers: choix I, choix II, choix IV

Possible grading for short length lumbers: choix I, choix II
Possible grading for short length rafters: choix I, choix II, choix III

For the "Special Market":

Possible grading for strips and small boards (ou battens): choix I, choix II, choix III

Possible grading for rafters: choix I, choix II, choix III

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M.3 (moderately inflammable)

Thickness < 14 mm : M.4 (easily inflammable)

Euroclasses grading: D s2 d0

Default grading for solid wood, according to requirements of European standard EN 14081-1 annex C (April

2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper

Fiber or particle boards

22 mm.

END-USES

Veneer for interior of plywood Veneer for back or face of plywood

Blockboard Exterior joinery
Interior joinery Exterior panelling
Current furniture or furniture components Sliced veneer
Boxes and crates Light carpentry
Glued laminated Wood frame house

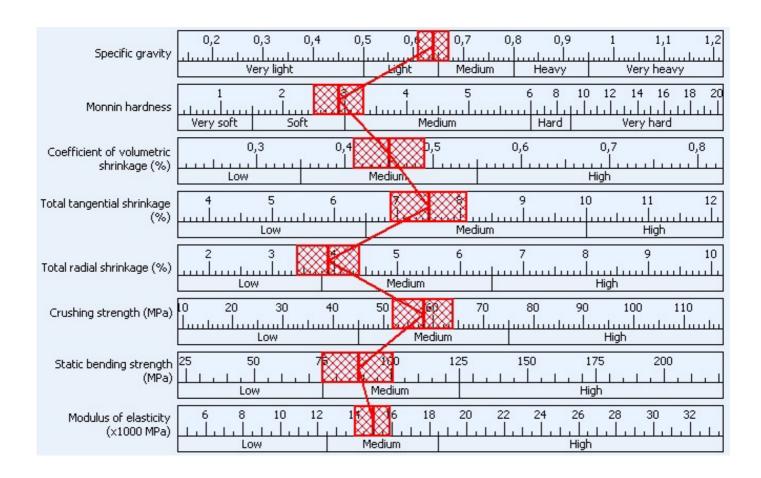
Shingles Formwork

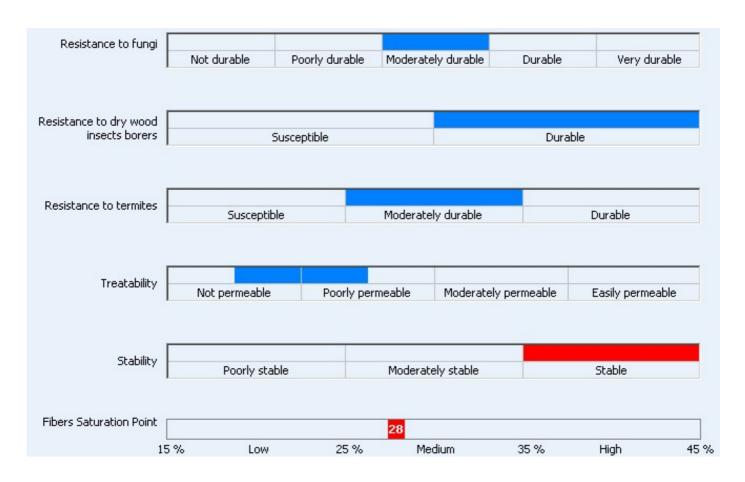
Note: Due to the presence of resin, it is often used painted. Wood from less resinous logs can be used as a substitute for WALNUT (Juglans spp.).

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MAIN LOCAL NAMES

Country Local name Country Local name TOLA CHINFUTA NOM SINEDON Angola Cameroon Congo KITOLA Congo TCHITOLA Gabon **EMOLA** Gabon M' BABOU Democratic Republic of the Congo Nigeria LOLAGBOLA AKWAKWA Democratic Republic of the Congo TSHIBUDIMBU





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