

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Monopetalanthus spp.

Commercial restriction: no commercial restriction

Note: Frequently confused with EKABA (Tetraberlinia spp.).

WOOD DESCRIPTION

Color: pinkish brown
 Sapwood: not clearly demarcated
 Texture: medium
 Grain: interlocked
 Interlocked grain: marked

Note: Pink brown to red brown. Possible wind shakes.

LOG DESCRIPTION

Diameter: from 80 to 100 cm
 Thickness of sapwood: from 5 to 15 cm
 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 *:	0,59	0,07
Monnin hardness *:	3,0	0,7
Coeff. of volumetric shrinkage:	0,46 %	0,11 %
Total tangential shrinkage (TS):	7,4 %	1,0 %
Total radial shrinkage (RS):	4,0 %	0,6 %
TS/RS ratio:	1,9	
Fiber saturation point:	28 %	
Stability:	moderately stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	48 MPa	8 MPa
Static bending strength *:	90 MPa	16 MPa
Modulus of elasticity *:	14010 MPa	2615 MPa
(*: at 12% moisture content, with 1 MPa = 1 N/mm ²)		
Musical quality factor:	109,1 measured at 2588 Hz	

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 2 - moderately permeable

Use class ensured by natural durability: class 1 - inside (no dampness)

Species covering the use class 5: No

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate 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: normal to slow	Possible drying schedule: 6			
Risk of distortion: high risk		Temperature (°C)		
Risk of casehardening: no	M.C. (%)	dry-bulb	wet-bulb	Air humidity (%)
Risk of checking: slight risk	Green	42	41	94
Risk of collapse: no	50	48	43	74
Note: Must be dried with care to avoid the risks of distortion in case of highly interlocked grain.	30	54	46	63
	20	60	51	62
	15	60	51	62

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: good
Note: Some difficulties in presence of highly interlocked grain. Tendency to woolliness.

ASSEMBLING

Nailing / screwing: good
Gluing: correct

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 III, 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 22 mm.

END-USES

Veneer for interior of plywood	Veneer for back or face of plywood
Interior joinery	Interior panelling
Boxes and crates	Current furniture or furniture components
Light carpentry	Exterior joinery
Formwork	Stairs (inside)
Flooring	Sliced veneer

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	EKOP-MAYO	Cameroon	ZOELE
Gabon	ANDOUNG	Gabon	N'DOUMA
Equatorial Guinea	ANDJUNG	Equatorial Guinea	EKOP
France	N'DOUMA		

