

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Didelotia africana  
 Didelotia idae  
 Didelotia letouzeyi  
 Didelotia brevipaniculata

Commercial restriction: no commercial restriction

## WOOD DESCRIPTION

Color: orange - yellow  
 Sapwood: clearly demarcated  
 Texture: coarse  
 Grain: interlocked  
 Interlocked grain: marked

Note: Heartwood pink orangey with sometimes greenish brown veins. Strong odour when green.

## LOG DESCRIPTION

Diameter: from 80 to 100 cm  
 Thickness of sapwood: from 5 to 10 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 *:	0,64	0,05
Monnin hardness *:	2,8	0,7
Coeff. of volumetric shrinkage:	0,50 %	0,09 %
Total tangential shrinkage (TS):	8,6 %	0,9 %
Total radial shrinkage (RS):	4,6 %	0,9 %
TS/RS ratio:	1,9	
Fiber saturation point:	32 %	
Stability: moderately stable		

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	54 MPa	4 MPa
Static bending strength *:	90 MPa	12 MPa
Modulus of elasticity *:	13940 MPa	2902 MPa

(\*: at 12% moisture content, with 1 MPa = 1 N/mm<sup>2</sup>)

Musical quality factor: 107,5 measured at 2686 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 4 - poorly durable

Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)

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: Low to moderate resistance to decay.

## 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: normal	Possible drying schedule: 2			
Risk of distortion: slight risk				
Risk of casehardening: yes				
Risk of checking: slight risk				
Risk of collapse: no				
Note: Possible risks of casehardening with thick boards. Avoid quick drying in order to reduce the risks of cracks (high shrinkage).				
	M.C. (%)	Temperature (°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: good
Note: Keep sharp cutters in order to obtain a good finish in case of interlocked grain. Veneers quality is medium.

## 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
Sliced veneer	Formwork
Boxes and crates	Interior joinery
Interior panelling	Exterior joinery
Current furniture or furniture components	Seats
Light carpentry	Wood frame house
Vehicle or container flooring	

## MAIN LOCAL NAMES

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<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	EKOP-GOMBE	Cameroon	GOMBE
Ivory Coast	BROUTOU	Gabon	ANGOK
Liberia	BONDU	Sierra Leone	TIMBA

