

Family: OLACACEAE (angiosperm)

Scientific name(s): Coula edulis

Commercial restriction: no commercial restriction

**WOOD DESCRIPTION****LOG DESCRIPTION**

Color: red brown	Diameter: from 60 to 80 cm
Sapwood: clearly demarcated	Thickness of sapwood: from 3 to 4 cm
Texture: fine	Floats: no
Grain: straight or interlocked	Log durability: no information available
Interlocked grain: slight	
Note: Wood purplish brown, with dark brown veins. Grain sometimes wavy.	

**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>	<u>Std dev.</u>		<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	1,01	0,07	Crushing strength *:	78 MPa	14 MPa
Monnin hardness *:	7,5	1,7	Static bending strength *:	142 MPa	15 MPa
Coeff. of volumetric shrinkage:	0,63 %	0,07 %	Modulus of elasticity *:	19490 MPa	1978 MPa
Total tangential shrinkage (TS):	8,5 %	0,7 %			
Total radial shrinkage (RS):	4,5 %	0,4 %	(*: at 12% moisture content, with 1 MPa = 1 N/mm <sup>2</sup> )		
TS/RS ratio:	1,9				
Fiber saturation point:	23 %		Musical quality factor:	101,2 measured at 2422 Hz	
Stability: moderately 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

Fungi (according to E.N. standards): class 1 - very durable

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

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

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

Species covering the use class 5: No

Note: According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

**REQUIREMENT OF A PRESERVATIVE TREATMENT**

Against dry wood borer attacks: does not require any preservative treatment

In case of risk of temporary humidification: does not require any preservative treatment

In case of risk of permanent humidification: does not require any preservative treatment

## DRYING

Drying rate: slow

Risk of distortion: high risk

Risk of casehardening: no information available

Risk of checking: high risk

Risk of collapse: no information available

Possible drying schedule: 4

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

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: fairly high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: not recommended or without interest

Slicing: nood

Note: Requires power.

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct (for interior only)

Note: Gluing must be done with care (very dense wood).

## 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

Sleepers  
Stakes  
Heavy carpentry  
Resistant to one or several acids

Poles  
Industrial or heavy flooring  
Vehicle or container flooring  
Sliced veneer

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**MAIN LOCAL NAMES**

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<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	EWOME	Cameroon	NGOUMA
Congo	KUMUNU	Ivory Coast	ATTIA
Ivory Coast	COULA	Gabon	EHOUME
Nigeria	IVIANLEGBE		

