

Family: MALVACEAE (angiosperm)

Scientific name(s): Nesogordonia papaverifera
Cistanthera papaverifera (synonymous)
Nesogordonia fouassieri

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: fine
Grain: straight or interlocked
Interlocked grain: slight

Note: Wood light brown to reddish brown. Moiré and ribbon like aspect on quartersawn. Sometimes presence of very small knots.

LOG DESCRIPTION

Diameter: from 50 to 80 cm
Thickness of sapwood: from 2 to 5 cm
Floats: no
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 *:	0,76	0,06
Monnin hardness *:	5,0	1,5
Coeff. of volumetric shrinkage:	0,50 %	0,07 %
Total tangential shrinkage (TS):	7,5 %	0,8 %
Total radial shrinkage (RS):	5,1 %	0,4 %
TS/RS ratio:	1,5	
Fiber saturation point:	30 %	
Stability: stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	67 MPa	6 MPa
Static bending strength *:	120 MPa	20 MPa
Modulus of elasticity *:	13020 MPa	2375 MPa

(*: at 12% moisture content, with 1 MPa = 1 N/mm²)

Musical quality factor: 98,5 measured at 2284 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 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.
Variable natural durability towards fungi.

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: slow

Possible drying schedule: 2

Risk of distortion: slight risk

Risk of casehardening: yes

Risk of checking: slight risk

Risk of collapse: no

Note: Risks of casehardening if drying is too fast. Initial surface drying prior to kiln drying is recommended.

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
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: fairly high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: good

Slicing: good

Note: Requires power. Blunting effect due to hardness. Tends to clog sawteeth when green. Sometimes difficulties due to interlocked grain.

ASSEMBLING

Nailing / screwing: good

Gluing: correct

Note: Pre-boring is sometimes necessary. Gluing must be done with care: wood can be stained.

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

Interior joinery

Stairs (inside)

Turned goods

Tool handles (resilient woods)

Cabinetwork (high class furniture)

Veneer for interior of plywood

Vehicle or container flooring

Note: A careful sanding is necessary in presence of interlocked grain.

Flooring

Current furniture or furniture components

Sculpture

Sliced veneer

Interior panelling

Veneer for back or face of plywood

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Angola	KISSINHUNGO	Cameroon	OVOE
Cameroon	OVOUI	Ivory Coast	KOTIBE
Gabon	ABORBORA	Ghana	DANTA
Nigeria	OTUTU	Central African Republic	NAOUYA
Democratic Republic of the Congo	KONDOFINDO	United Kingdom	DANTA

