

Common name:	CONGOTALI
Family:	SAPOTACEAE
Scientific name(s):	Letestua durissima

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 70 to 90 cm	Colour:	Red brown
Thickness of sapwood:	from 5 to 8 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Fine
Durability in forest :	Good	Grain:	Interlocked
		Interlocked grain:	Marked
Note:	Possible presence of wind shakes.		

PHYSICAL PROPERTIES			MECHANICAL PROPERTIES		
Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.					
	mean	standard deviation		mean	standard deviation
Density *:	1.10 g/cm ³	0.02			
Monnin hardness*:	15.1	3.8	Crushing strength *:	92 MPa	7
Coef of volumetric shrinkage:	0.73 %	0.04	Static bending strength *:	190 MPa	18
Total tangential shrinkage:	10.8 %	0.8	Modulus of elasticity *:	26700 MPa	2250
Total radial shrinkage:	7.8 %	0.9			
Fibre saturation point:	23 %				
Stability:	Poorly stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)		

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.

Fungi:	Class 1 - very durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class D - Durable	
Treatability:	4 - not permeable	
Biological hazard class*:	4 - in ground or fresh water contact or high dampness	
Note:	Due to its high specific gravity, its hardness and a high silica content, this species naturally covers the biological hazard class 5 (end-uses in marine environment or in brackish water).	

COUNTRIES - LOCAL NAMES

Countries	Local names
Congo	CONGOTALI
Gabon	KONG-AFANE

CONGOTALI

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Does not require any preservative treatment
In case of permanent humidification risk:	Does not require any preservative treatment

DRYING

Possible drying schedule

Drying rate:	Slow	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	High risk	Green	40	37	82
Risk of casehardening:	No	40	44	38	68
Risk of checking:	High risk	30	44	36	59
Risk of collapse:	No	20	46	36	52
		15	49	37	46

This shedule is given for information only and is applicable to thickness < 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:	High
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Not recommended or without interest
Note:	Must be sawn with the highest moisture content possible.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)
Note:	Gluing must be done with care (very dense wood).

END-USES

Main known end-uses; they must to be implemented according to the code of practice.

Important remark: some end-uses are mentionned for information (traditional, regional or ancient end-uses).

Note: Can be used as substitute for AZOBE (*Lophira alata*).

Hydraulic works (fresh water)
Bridges (parts in contact with water or ground)
Sleepers
Industrial or heavy flooring
Vehicle or container flooring
Heavy carpentry
Bridges (parts not in contact with water or ground)
