

Common name:	MUKULUNGU
Family:	SAPOTACEAE
Scientific name(s):	Autranella congolensis Mimusops congolensis (synonymous)

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 80 to 120 cm	Colour:	Red brown
Thickness of sapwood:	from 2 to 3 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Fine
Durability in forest :	Good	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Heart of logs tends to split. Wood red brown with darker brown veins. Grain sometimes oblique.		

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 *:	0.94 g/cm ³	0.03			
Monnin hardness*:	7.7	2.0	Crushing strength *:	74 MPa	5
Coef of volumetric shrinkage:	0.66 %	0.04	Static bending strength *:	119 MPa	17
Total tangential shrinkage:	8.4 %	0.3	Modulus of elasticity *:	17060 MPa	1660
Total radial shrinkage:	7.4 %	1.0			
Fibre saturation point:	26 %				
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:	3 - poorly permeable	
Use class*:	4 - in ground or fresh water contact	
Note:	This species naturally covers the use class 5 (end-uses in marine environment or in brackish water) due to its high specific gravity and silica content. According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.	

MAIN LOCAL NAMES

Countries	Local names
Angola	KUNGULU
Cameroon	ELANG
Cameroon	ELANZOK
Central African Rep	BOUANGA
Congo	MFUA
Dem Rep of Congo	MUKULUNGU

MUKULUNGU

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 information available	40	44	38	68
Risk of checking:	High risk	30	44	36	59
Risk of collapse:	No information available	20	46	36	52
		15	49	37	46

This schedule 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.

Note: Must be dried carefully.

SAWING AND MACHINING

Blunting effect:	High
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Requires power. Sawdust very irritant for throat and nose.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)

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).

Hydraulic works (seawater)

Sleepers

Bridges (parts in contact with water or ground)

Posts

Industrial or heavy flooring

Heavy carpentry

Flooring

Vehicle or container flooring

Stairs (inside)

Bridges (parts not in contact with water or ground)

Interior panelling

Sliced veneer

Exterior panelling

Cooperage

Resistant to one or several acids
