

Common name:	DOUSSIE
Family:	CAESALPINIACEAE
Scientific name(s):	Afzelia africana Afzelia bella Afzelia bipindensis Afzelia pachyloba

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 60 to 90 cm
Thickness of sapwood:	from 2 to 5 cm
Floats:	no
Durability in forest :	Good
Note:	Wood golden brown to light red brown, sometimes with darker veins. Pores and shakes filled with a yellow or white powder.

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 *:	0.80 g/cm ³	0.06	Crushing strength *:	74 MPa	10
Monnin hardness*:	7.7	1.6	Static bending strength *:	124 MPa	23
Coef of volumetric shrinkage:	0.44 %	0.10	Modulus of elasticity *:	17020 MPa	2889
Total tangential shrinkage:	4.4 %	0.7			
Total radial shrinkage:	3.0 %	0.5			
Fibre saturation point:	19 %				
Stability:	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:	This species is listed in the European standard NF EN 350-2.	

COUNTRIES - LOCAL NAMES

Countries	Local names	Countries	Local names
Angola	N'KOKONGO	Tanzania	MBEMBAKOFI
Angola	UVALA	Tanzania	MKORA
Benin	KPAKPATIN	Germany	AFZELIA
Benin	PAKPAJIDE	Portugal	CHANFUTA
Cameroon	DOUSSIE	United Kingdom	AFZELIA
Cameroon	M'BANGA		
Côte d'Ivoire	AZODAU		
Côte d'Ivoire	LINGUE		
Dem Rep of Congo	BOLENGU		
Ghana	PAPAO		
Guinea-Bissau	PAU CONTA		
Mozambique	CHANFUTA		
Mozambique	MUSSACOSSA		
Nigeria	APA IGBO		
Senegal	LINGUE		
Sierra Leone	KPENDEI		

DOUSSIE

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**

		Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Drying rate:	Slow				
Risk of distortion:	Slight risk				
Risk of casehardening:	No				
Risk of checking:	Slight risk				
Risk of collapse:	No	30	42	41	94
		25	42	39	82
		20	48	43	74
		15	48	43	74

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: Difficulties in extracting moisture from the heart of pieces. Slow drying necessary (3 to 5 months).

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Peeling recommended only for decorative veneer. Sawdust may cause irritations. Some difficulties due to interlocked grain (tearing).

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)
Note:	Tends to split in nailing. Gluing must be done with care due to the specific gravity and the presence of resins.

END-USES

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

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

Note: Staining sometimes difficult (yellow or white deposits). Filling is recommended in order to obtain a good finish.

Ship building (ribs)	Shingles
Ship building (planking and deck)	Resistant to one or several acids
Exterior joinery	Bridges (parts in contact with water or ground)
Interior joinery	Sliced veneer
Stairs (inside)	
Flooring	
Bridges (parts not in contact with water or ground)	
Interior panelling	
Exterior panelling	
Cabinetwork (high class furniture)	
Current furniture or furniture components	
Cooperage	
Industrial or heavy flooring	
Heavy carpentry	
Wood frame house	