

Common name:	AZOBE
Family:	OCHNACEAE
Scientific name(s):	Lophira alata Lophira procera (synonymous)

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 60 to 100 cm
Thickness of sapwood:	from 2 to 4 cm
Floats:	no
Durability in forest :	Good
	Colour: Dark red
	Sapwood: Clearly demarcated
	Texture: Coarse
	Grain: Interlocked
	Interlocked grain: Marked
Note:	Dark red to purple brown wood. Intermediate zone between sapwood and heartwood. White deposits in the pores.

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 *:	1.06 g/cm ³	0.04			
Monnin hardness*:	10.7	2.7	Crushing strength *:	96 MPa	9
Coef of volumetric shrinkage:	0.69 %	0.01	Static bending strength *:	162 MPa	21
Total tangential shrinkage:	10.3 %	0.9	Modulus of elasticity *:	21420 MPa	3539
Total radial shrinkage:	7.3 %	1.0			
Fibre saturation point:	28 %				
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 2 - 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	
Use class*:	4 - in ground or fresh water contact	
Note:	This species is listed in the European standard NF EN 350-2.	
	Transitional wood has a variable durability. Good resistance to marine borers in temperate water but moderate resistance in tropical water. This species is thus considered as "moderately durable" towards marine borers and covers the use class 5 only when used in temperate or cold marine environment.	
	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
Benin	EKI
Congo	BONKOLE
Côte d'Ivoire	AZOBE
Equatorial Guinea	AKOGA
Gabon	AKOGA
Ghana	KAKU
Nigeria	EBA
Nigeria	EKKI
Sierra Leone	HENDUI
Germany	BONGOSI
Germany	BONKOLE
United Kingdom	EKKI

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

	Slow	Temperature (°C)		Air humidity (%)
		M.C. (%)	dry-bulb	
Drying rate:	Slow			
Risk of distortion:	High risk			
Risk of casehardening:	No			
Risk of checking:	High risk	Green	40	37
Risk of collapse:	No	40	44	38
		30	44	36
		20	46	36
		15	49	37
				82
				68
				59
				52
				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: Surface drying period recommended (3 to 4 months) (under shelter) prior to kiln drying. Drying very difficult for thickness > 38 mm.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Not recommended or without interest
Note:	Requires power. Log turning sawing recommended (internal stresses). Some difficulties in planing due to interlocked grain.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)
Note:	Variable gluing properties. Gluing must be done carefully (dry wood and smooth surface) as the wood is very dense.

END-USES

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

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

Note: For end-uses under permanent humidification, transition wood must be eliminated.

Hydraulic works (fresh water)
 Sleepers
 Bridges (parts in contact with water or ground)
 Industrial or heavy flooring
 Vehicle or container flooring
 Stairs (inside)
 Heavy carpentry
 Bridges (parts not in contact with water or ground)
 Wood frame house
 Cooperage
 Posts
 Stakes
 Resistant to one or several acids
 Hydraulic works (seawater)
