

Common name:	CELTIS D'AFRIQUE
Family:	ULMACEAE
Scientific name(s):	Celtis adolfi-friderici Celtis tessmannii Celtis mildbraedii Celtis zenkeri Celtis gomphylla
Note:	The name CELTIS d'AFRIQUE includes both commercial names DIANIA (C. adolfi-friderici, C. tessmannii) and OHIA (C. mildbraedii, C. zenkeri, C. gomphylla).

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 60 to 110 cm	Colour:	Light yellow
Thickness of sapwood:	from to cm	Sapwood:	Not demarcated
Floats:	yes	Texture:	Medium
Durability in forest :	Low (must be treated)	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Wood cream white to light yellow bordering on light brown. Unpleasant odour when green or with rewetted wood.		

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 *:	0.74 g/cm <sup>3</sup>	0.07			
Monnin hardness*:	7.0	2.3	Crushing strength *:	59 MPa	7
Coef of volumetric shrinkage:	0.55 %	0.07	Static bending strength *:	113 MPa	16
Total tangential shrinkage:	7.8 %	1.0	Modulus of elasticity *:	16500 MPa	2319
Total radial shrinkage:	4.4 %	0.8			
Fibre saturation point:	28 %				
Stability:	Moderately stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> )		
Note:	Hardness varies from fairly hard to hard.				

#### 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 5 - not durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)	
Termites:	Class S - Susceptible	
Treatability:	1 - easily permeable	
Use class*:	1 - inside (no dampness)	
Note:	Prone to blue stain.	

#### MAIN LOCAL NAMES

Countries	Local names	Countries	Local names
Cameroon	ODOU VRAI (DIANIA)	Dem Rep of Congo	KAYOMBO (OHIA)
Congo	KILIAKAMBA (DIANIA)	Ghana	CELTIS (OHIA)
Côte d'Ivoire	LOHONFE (DIANIA)	Ghana	ESA-FUFU (OHIA)
Dem Rep of Congo	DIANIA	Ghana	ESA-KOKOO (OHIA)
Gabon	ENGO (DIANIA)	Kenya	SHIUNZA (OHIA)
Ghana	ESA-BIRI (DIANIA)	Nigeria	OHIA
Ghana	ESA-KOSUA (DIANIA)	Uganda	NAMANUKA (OHIA)
Liberia	LOKONFI (DIANIA)	Germany	CELTIS
Nigeria	DUNKI (DIANIA)		
Nigeria	ITA (DIANIA)		
Nigeria	ZUWO (DIANIA)		
Uganda	EKEMBE BAKASWA (DIANIA)		
Benin	BAWE (OHIA)		
Cameroon	ODOU (OHIA)		
Côte d'Ivoire	ASAN (OHIA)		
Côte d'Ivoire	BA (OHIA)		
Dem Rep of Congo	BOLUNDE (OHIA)		

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Requires appropriate preservative treatment
In case of temporary humidification risk:	Requires appropriate preservative treatment
In case of permanent humidification risk:	Use not recommended

DRYING

Possible drying schedule

	Drying rate:	Slow	Temperature (°C)		Air humidity (%)	
			M.C. (%)	dry-bulb		wet-bulb
Risk of distortion:	High risk					
Risk of casehardening:	No					
Risk of checking:	High risk					
Risk of collapse:	No					
			Green	42	39	82
			50	48	43	74
			40	48	43	74
			30	48	43	74
			15	54	46	63

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: Defects can be reduced by top weighting the piles and applying end-coating products. Drying must be done slowly and carefully.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Good
Slicing:	Good
Note:	Possible difficulties with highly interlocked grain; in this case, special tools are recommended. Sometimes, high silica content for <i>C. tessmanii</i> .

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Tends to split when nailing.

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: Sawdust may be irritant (OHIA).

Veneer for interior of plywood

Veneer for back or face of plywood

Formwork

Boxes and crates

Flooring

Interior joinery

Interior panelling

Moulding

Turned goods

Heavy carpentry

Matches

Current furniture or furniture components

Stairs (inside)

Vehicle or container flooring

Sliced veneer