Common name:	OKAN
Family:	MIMOSACEAE
Scientific name(s):	Cylicodiscus gabunensis

LOG DESCRIPTION

Diameter:	from 90 to 150 cm
Thickness of sapwood:	from 5 to 8 cm
Floats:	no
Durability in forest :	Good
Note:	Unpleasant odour when green. Heartwood yellow brown becomes red brown with air.

WOOD DESCRIPTION

Colour:	Red brown
Sapwood:	Clearly demarcated
Texture:	Medium
Grain:	Interlocked
Interlocked grain:	Marked

PHYSICAL 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
Density *:	0.91 g/cm3	0.10
Monnin hardness*:	10.3	3.4
Coef of volumetric shrinkage:	0.61 %	0.10
Total tangential shrinkage:	7.9 %	1.0
Total radial shrinkage:	5.8 %	0.6
Fibre saturation point:	25 %	
Stability:	Moderately stable to poorly stable	

MECHANICAL PROPERTIES

	mean	standard deviation
Crushing strength *:	82 MPa	12
Static bending strength *:	134 MPa	23
Modulus of elasticity *:	22260 MPa	3348

(* : at 12 % moisture content ; 1 MPa = 1 N/mm2)

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
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. It naturally covers the use class 5 (end-uses in marine environment or in brackish water) due to its high specific gravity and hardness. According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

* ensured by natural durability (according EN standards).

MAIN LOCAL NAMES

Countries	Local names
Cameroon	ADOUM
Cameroon	AFRICAN GREENHEART
Cameroon	BOKOKA
Congo	N'DUMA
Côte d'Ivoire	BOUEMON
Gabon	EDOUM
Gabon	ODUMA
Ghana	ADADUA
Ghana	BENYA
Ghana	DENYA
Nigeria	OKAN

OKAN

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

Drying rate:	Slow
Risk of distortion:	High risk
Risk of casehardening:	No
Risk of checking:	High risk
Risk of collapse:	No

Possible drying schedule

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	40	37	82
40	44	38	68
30	44	36	59
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: Kiln drying must be handled carefully.

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. It is sometimes difficult to obtain a good finish because of highly interlocked grain. Tendency to tear on quartersawn.

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).

Note: Substitute for AZOBE (Lophira alata) and GREENHEART (Ocotea rodiaei).

Hydraulic works (seawater)
Posts
Sleepers
Industrial or heavy flooring
Heavy carpentry
Vehicle or container flooring
Sculpture
Turned goods
Bridges (parts in contact with water or ground)
Bridges (parts not in contact with water or ground)
Flooring