Common name:	ACAJOU D'AFRIQUE
Family:	MELIACEAE
Scientific name(s):	Khaya anthotheca Khaya ivorensis Khaya grandifoliola

LOG DESCRIPTION

Diameter:	from 80 to 120 cm
Thickness of sapwood:	from 3 to 8 cm
Floats:	yes
Durability in forest :	Moderate (treatment recommended)
Note:	Sometimes, presence of tension wood and brittleheart. Wood pink brown to deep red with copper reflection.

WOOD DESCRIPTION

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

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
Density *:	0.57 g/cm3	0.08
Monnin hardness*:	2.5	0.4
Coef of volumetric shrinkage:	0.39 %	0.03
Total tangential shrinkage:	5.5 %	0.5
Total radial shrinkage:	3.7 %	0.8
Fibre saturation point:	28 %	

	mean	standard deviation
Crushing strength *:	46 MPa	7
Static bending strength *:	77 MPa	13
Modulus of elasticity *:	11820 MPa	1261

Stability: Moderately stable

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

Note: K. grandifoliola is fairly hard. Physical and mechanical properties of K. ivorensis are lower than other species.

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 3 - moderately durable
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)
Termites:	Class S - Susceptible
Treatability:	4 - not permeable
Biological hazard class*:	2 - not in ground contact, under cover (dampness possible)
Note:	This species is listed in the European standard NF EN 350-2. The ACAJOU D'AFRIQUE cannot be used without appropriate preservative treatment for end-uses under biological hazard class 3, except for some parts of a work such as windows, less exposed than others (entrance doors, shutters …).

* ensured by natural durability (according EN standards).

COUNTRIES - LOCAL NAMES

Countries	Local names
Angola	N'DOLA
Angola	UNDIA NUNU
Benin	KAJU
Cameroon	MANGONA
Cameroon	N'GOLLON
Congo	N'DOLA
Côte d'Ivoire	ACAJOU BASSAM
Côte d'Ivoire	ACAJOU BLANC
Côte d'Ivoire	KRALA
Equatorial Guinea	CAOBA DEL GALON
Equatorial Guinea	ZAMANGUILA
Gabon	ZAMINGUILA
Ghana	AFRICAN MAHOGANY
Ghana	AHAFO
Ghana	TAKORADI MAHOGANY
Nigeria	AKUK
Nigeria	OGWANGO
Uganda	ERI KIRE
Uganda	MUNYAMA
France	ACAJOU BASSAM
France	ACAJOU BLANC
Germany	KHAYA MAHOGANI
United Kingdom	AFRICAN MAHOGANY
United Kingdom	HEAVY AFRICAN MAHOGANY

ACAJOU D'AFRIQUE

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

DRYING

Drying rate:	Rapid
Risk of distortion:	Slight risk
Risk of casehardening:	No
Risk of checking:	Slight risk
Risk of collapse:	No

Possible drying schedule

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	50	47	84
40	50	45	75
30	55	47	67
20	70	55	47
15	75	58	44

This shedule 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: Risks of distortion may increase in presence of tension wood or interlocked grain occasionnally high.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Tendency to woolliness (tension wood) in sawing. Risks of tearing (interlocked grain) in planing. Ribbon like aspect on quartersawn.

ASSEMBLING

Nailing / Screwing:	Good
Gluing:	Correct

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: Pores sometimes filled with black deposits. Sawdust may cause irritation. Filling is recommended to obtain a better finish.

Cabinetwork (high class furniture)
Current furniture or furniture components
Sliced veneer
Interior panelling
Ship building (planking and deck)
Open boats
Veneer for back or face of plywood
Exterior joinery
Interior joinery
Exterior panelling
Light carpentry