

Common name:	EBENE D'AFRIQUE
Family:	EBENACEAE
Scientific name(s):	Diospyros crassiflora Diospyros mespiliformis
Note:	Other African Diospyros species are not commercialized due to their light colour (ex.: D. sanzaminika). Moreover, there are a lots of other Diospyros species, especially in Asia-Océania: among others, D. perrierii in Madagascar, D. celebica and D. rumphii (Ebène de Macassar). Wood often commercialized in small logs of 1 m to 1,5 m long.

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 30 to 60 cm
Thickness of sapwood:	from 5 to 12 cm
Floats:	no
Durability in forest :	Good
	Colour: Black
	Sapwood: Clearly demarcated
	Texture: Fine
	Grain: Straight or interlocked
	Interlocked grain: Slight
Note:	Logs may present different kinds of defects, especially small pinholes and heartwood rots. Wood is uniform black to black brown (D. mespiliformis).

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 *:	0.90 g/cm ³	0.06			
Monnin hardness*:	7.0	0.6	Crushing strength *:	58 MPa	8
Coef of volumetric shrinkage:	0.51 %	0.04	Static bending strength *:	130 MPa	31
Total tangential shrinkage:	11.0 %	0.5	Modulus of elasticity *:	15500 MPa	3500
Total radial shrinkage:	7.0 %	0.2			
Fibre saturation point:	29 %				
Stability:	Poorly stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)		
Note:	Properties are very variable according to the species and the origin; thus, specific gravity may vary from 0,75 to 1,1.				

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	
Use class*:	4 - in ground or fresh water contact	

MAIN LOCAL NAMES

Countries	Local names
Benin	CUBAGA
Benin	EBENE
Cameroon	EPINDE-PINDE
Cameroon	MAVINI
Cameroon	MEVINI
Cameroon	NDOU
Central African Rep	BINGO
Central African Rep	NGOUBOU
Congo	MOPINI
Equatorial Guinea	EBANO
Gabon	EVILA
Nigeria	ABOKPO
Nigeria	KANRAN
Nigeria	NYARETI
Nigeria	OSIBIN
Germany	AFRIKANISCHES EBENHOLZ
United Kingdom	AFRICAN EBONY

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

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	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.

SAWING AND MACHINING

Blunting effect:	High
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	For machining and slicing, powerful machines are necessary due to the high hardness. Sawdust may cause dermatitis.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
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:	A preliminary surface treatment with alcohol is recommended for polyester coatings and undercoats.
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Wood-ware
Turned goods
Musical instruments
Wind instruments
Cabinetwork (high class furniture)
Sculpture
Tool handles (resilient woods)
