

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	Colour:	Black
Thickness of sapwood:	from 5 to 12 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Fine
Durability in forest :	Good	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	
Biological hazard class*:	4 - in ground or fresh water contact or high dampness	

COUNTRIES - LOCAL NAMES

Countries	Local names	Countries	Local names
Benin	CUBAGA	Nigeria	OSIBIN
Benin	EBENE	Germany	AFRIKANISCHES EBENHOLZ
Cameroon	EPINDE-PINDE	United Kingdom	AFRICAN EBONY
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		

EBENE D'AFRIQUE

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 mentioned 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)
