

Common name:	AVODIRE
Family:	MELIACEAE
Scientific name(s):	Turraeanthus africanus

LOG DESCRIPTION

Diameter:	from 50 to 70 cm
Thickness of sapwood:	from to cm
Floats:	yes
Durability in forest :	Low (must be treated)

WOOD DESCRIPTION

Colour:	Light yellow
Sapwood:	Not demarcated
Texture:	Fine
Grain:	Straight or interlocked
Interlocked grain:	Slight

Note: Wood cream white or light yellow, lustrous aspect, turns to golden yellow with light. Moiré or ribbon like aspect on quartersawn.

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

MECHANICAL PROPERTIES

	mean	standard deviation		mean	standard deviation
Density *:	0.58 g/cm ³	0.06			
Monnin hardness*:	2.7	0.9	Crushing strength *:	52 MPa	7
Coef of volumetric shrinkage:	0.36 %	0.11	Static bending strength *:	94 MPa	15
Total tangential shrinkage:	6.6 %	1.1	Modulus of elasticity *:	12590 MPa	1550
Total radial shrinkage:	3.8 %	0.6			
Fibre saturation point:	39 %				
Stability:	stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)		

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 4 - poorly durable
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)
Termites:	Class S - Susceptible
Treatability:	4 - not permeable
Use class*:	2 - inside or under cover (dampness possible)
Note:	This species is listed in the European standard NF EN 350-2. Prone to blue stain.

* ensured by natural durability (according EN standards).

MAIN LOCAL NAMES

Countries	Local names
Côte d'Ivoire	AVODIRE
Dem Rep of Congo	LUSAMBA
Dem Rep of Congo	M'FUBE
Ghana	APAPAYA
Ghana	AVODIRE
Liberia	BLIMA-PU
Nigeria	APAYA
Belgium	LUSAMBA

AVODIRE

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

DRYING

Possible drying schedule

Drying rate:	Rapid to normal	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	High risk	Green	50	47	84
Risk of casehardening:	No	40	50	45	75
Risk of checking:	Slight risk	30	55	47	67
Risk of collapse:	No	20	70	55	47
		15	75	58	44

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: Existing end checks tend to enlarge.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Bad
Slicing:	Good
Note:	Poor aptitude for peeling (irregular logs). Very irritant sawdust; good ventilation required. Sometimes tearing in planing.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Slight tendency 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: Substitute for SYCOMORE (Acer spp.) for furnitures.

Cabinetwork (high class furniture)
Sliced veneer
Interior joinery
Interior panelling
Current furniture or furniture components
Musical instruments
Moulding
