

Family: SAPOTACEAE (angiosperm)

Scientific name(s): Baillonella toxisperma

Mimusops djave (synonymous)

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: fine
Grain: straight or interlocked
Interlocked grain: slight

Note: Wood pink brown to red brown more or less dark and finely veined. Satin like aspect on quartersawn.

LOG DESCRIPTION

Diameter: from 60 to 100 cm
Thickness of sapwood: from 4 to 6 cm
Floats: no
Log durability: good

PHYSICAL PROPERTIES

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

	<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	0.87	0.07
Monnin hardness *:	6.8	1.1
Coeff. of volumetric shrinkage:	0.64 %	0.01 %
Total tangential shrinkage (TS):	8.7 %	
Total radial shrinkage (RS):	6.5 %	
TS/RS ratio:	1.3	
Fiber saturation point:	23 %	
Stability:	poorly stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	74 MPa	10 MPa
Static bending strength *:	143 MPa	19 MPa
Modulus of elasticity *:	21040 MPa	2630 MPa

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

Musical quality factor: 120 measured at 2565 Hz

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.

E.N. = Euro Norm

Funghi (according to E.N. standards): class 1 - very durable

Dry wood borers: class D - durable (sapwood demarcated, risk limited to sapwood)

Termites (according to E.N. standards): class D - durable

Treatability (according to E.N. standards): class 3-4 - poorly or not permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

Species covering the use class 5: yes

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 a high silica content.

According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment

In case of risk of temporary humidification: does not require any preservative treatment

In case of risk of permanent humidification: does not require any preservative treatment

DRYING

Drying rate: slow	Possible drying schedule: 2			
Risk of distortion: slight risk		Temperature (°C)		
Risk of casehardening: no	M.C. (%)	dry-bulb	wet-bulb	Air humidity (%)
Risk of checking: high risk	Green	50	47	84
Risk of collapse: no	40	50	45	75
	30	55	47	67
Note: Surface drying under cover. Kiln drying must be handled with care. It is recommended to dry until a low moisture content (10. 12 %) because of its shrinkage.	20	70	55	47
	15	75	58	44

This schedule is given for information only and is applicable to thickness lower or equal to 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: good
Slicing: good
Note: Requires power. Blunting effect fairly high to high (silica). Sawdust can irritate mucous membranes.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct
Note: Tends to split when nailing. Gluing requires care (dense wood).

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to SATA grading rules (1996)
For the "General Purpose Market":
Possible grading for square edged timbers: choix I, choix II, choix III, choix IV
Possible grading for short length lumbers: choix I, choix II
Possible grading for short length rafters: choix I, choix II, choix III
For the "Special Market":
Possible grading for strips and small boards (ou battens): choix I, choix II, choix III
Possible grading for rafters: choix I, choix II, choix III

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M3 (moderately inflammable)
Thickness < 14 mm : M4 (easily inflammable)
Euroclasses grading: D s2 d0
Default grading for solid wood, according to requirements of European standard EN 14081-1 annex C (April 2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper 22 mm.

END-USES

Exterior joinery	Rolling shutters
Interior joinery	Interior panelling
Flooring	Stairs (inside)
Current furniture or furniture components	Sliced veneer
Cabinetwork (high class furniture)	Veneer for interior of plywood
Veneer for back or face of plywood	Sleepers
Turned goods	Arched goods
Sculpture	Industrial or heavy flooring
Heavy carpentry	Bridges (parts not in contact with water or ground)
Note: Substitute for MAKORE (Tieghemella spp.).	

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Angola	MOABI	Cameroon	ADJAP
Cameroon	AYAP	Congo	DIMPAMPI
Congo	MOABI	Gabon	ADZA
Gabon	M'FOI	Equatorial Guinea	ADJAP
Equatorial Guinea	AYAP	Nigeria	OKO UKU
Democratic Republic of the Congo	MUAMBA JAUNE	United Kingdom	AFRICAN PEARWOOD



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