

Family: FABACEAE-MIMOSOIDEAE (angiosperm)

Scientific name(s): Piptadeniastrum africanum

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: yellow brown
Sapwood: clearly demarcated
Texture: coarse
Grain: interlocked
Interlocked grain: marked

Note: Wood light brown to golden brown, sometimes ribbon like aspect on quartersawn. Ammoniac odour when green or with rewetted woods.

LOG DESCRIPTION

Diameter: from 60 to 120 cm
Thickness of sapwood: from 5 to 15 cm
Floats: no
Log durability: moderate (treatment recommended)

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 *:	0,70	0,06
Monnin hardness *:	4,4	1,6
Coeff. of volumetric shrinkage:	0,55 %	0,10 %
Total tangential shrinkage (TS):	8,5 %	1,2 %
Total radial shrinkage (RS):	3,8 %	0,6 %
TS/RS ratio:	2,2	
Fiber saturation point:	27 %	
Stability:	moderately stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	57 MPa	6 MPa
Static bending strength *:	98 MPa	13 MPa
Modulus of elasticity *:	15190 MPa	2027 MPa

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

Musical quality factor: 106,9 measured at 2556 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 3 - moderately durable

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

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

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)

Species covering the use class 5: No

Note: Resistance to fungi: moderate to good. Heart not resistant.

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

In case of risk of temporary humidification: requires appropriate preservative treatment

In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: normal to slow

Risk of distortion: high risk

Risk of casehardening: yes

Risk of checking: high risk

Risk of collapse: no

Note: To reduce distortions, surface drying is recommended prior to kiln drying.

Possible drying schedule: 4

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

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: normal

Sawteeth recommended: ordinary or alloy steel

Cutting tools: ordinary

Peeling: good

Slicing: not recommended or without interest

Note: Very irritant sawdust. Quartersawn is recommended in order to reduce the risks of distortion.

ASSEMBLING

Nailing / screwing: good

Gluing: correct

Note: Risks of end checks.

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 : M.3 (moderately inflammable)

Thickness < 14 mm : M.4 (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

Heavy carpentry

Vehicle or container flooring

Industrial or heavy flooring

Glued laminated

Veneer for interior of plywood

Wood frame house

Exterior panelling

Stairs (inside)

Current furniture or furniture components

Veneer for back or face of plywood

Note: Can be used as substitute for OAK (*Quercus* spp.) for some end-uses. The unpleasant odour of this wood when green, or rewetted, must be taken into account according to the type of end-uses and the destination.

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Angola	N'SINGA	Benin	GLENREN
Cameroon	ATUI	Congo	N'SINGA
Ivory Coast	DABEMA	Gabon	TOUM
Ghana	DAHOMA	Equatorial Guinea	TOM
Liberia	MBELI	Nigeria	AGBOIN
Nigeria	EKHIMI	Uganda	MPEWERE
Central African Republic	MOKOUNGOU	Democratic Republic of the Congo	BOKUNGU
Democratic Republic of the Congo	LIKUNDU	Sierra Leone	MBELE-GULI
Netherlands	BUKUNGU	United Kingdom	DAHOMA

