

Family: ANACARDIACEAE (angiosperm)

Scientific name(s): Astronium balansae
 Astronium fraxinifolium
 Astronium graveolens
 Astronium lecontei
 Astronium urundeuva

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

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

LOG DESCRIPTION

Diameter: from 60 to 80 cm
 Thickness of sapwood: from 4 to 10 cm
 Floats: no
 Log durability: good

Note: Pinkish brown to yellow brown, becoming red brown to dark brown, with very irregularly spaced black brown veins.

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 *:	0,80	0,11
Monnin hardness *:	6,1	
Coeff. of volumetric shrinkage:	0,56 %	
Total tangential shrinkage (TS):	7,9 %	
Total radial shrinkage (RS):	4,3 %	
TS/RS ratio:	1,8	
Fiber saturation point:	22 %	
Stability:	poorly stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	76 MPa	
Static bending strength *:	96 MPa	
Modulus of elasticity *:	16500 MPa	

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

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: durable - sapwood demarcated (risk limited to sapwood)

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

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

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

Species covering the use class 5: No

Note: 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: normal
 Risk of distortion: slight risk
 Risk of casehardening: no
 Risk of checking: slight risk
 Risk of collapse: no

Possible drying schedule: 5

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
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 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: fairly high
 Sawteeth recommended: stellite-tipped
 Cutting tools: tungsten carbide
 Peeling: not recommended or without interest
 Slicing: nood

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
 Gluing: poor

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)
 Possible grading: FAS, Select, Common 1, Common 2, Common 3

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

Cabinetwork (high class furniture)
 Flooring
 Turned goods
 Interior joinery
 Heavy carpentry
 Tool handles (resilient woods)

Sliced veneer
 Wood-ware
 Exterior joinery
 Interior panelling
 Musical instruments
 Sculpture

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Brazil	ADERNO-PRETO	Brazil	BARACATIARA
Brazil	GONÇALEIRO	Brazil	GONÇALO-ALVEZ
Brazil	GUARIBU-PRETO	Brazil	GUARITA
Brazil	MIRUEIRA	Brazil	MUIRACATIARA
Brazil	SANGUESSUGUEIRA	Colombia	GUSANERO
Ecuador	GUASANGO	Mexico	PALO DE CULEBRA
Paraguay	URUNDAY-PARA	Venezuela	GATEADO

