

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Aldina heterophylla

Commercial restriction: no commercial restriction

Note: MACUCU DE PACA is commercialized blended with ANGELIM (Hymenolobium spp.).

## WOOD DESCRIPTION

Color: yellow brown  
Sapwood: not clearly demarcated  
Texture: coarse  
Grain: interlocked  
Interlocked grain: marked but not frequent  
Note: Risk of shakes on logs.  
Grain sometimes wavy.

## LOG DESCRIPTION

Diameter: from 60 to 100 cm  
Thickness of sapwood: from 5 to 8 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 *:	0,88	0,06
Monnin hardness *:	7,6	1,5
Coeff. of volumetric shrinkage:	0,61 %	0,05 %
Total tangential shrinkage (TS):	7,6 %	1,2 %
Total radial shrinkage (RS):	4,9 %	0,8 %
TS/RS ratio:	1,6	
Fiber saturation point:	24 %	
Stability: moderately stable		

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	64 MPa	6 MPa
Static bending strength *:	109 MPa	28 MPa
Modulus of elasticity *:	18170 MPa	1463 MPa

(\*: at 12% moisture content, with 1 MPa = 1 N/mm<sup>2</sup>)

Musical quality factor: 135,5 measured at 2537 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: heartwood durable but sapwood not clearly demarcated

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 4 - in ground or fresh water contact

Species covering the use class 5: No

Note: The possible presence of few demarcated sapwood in sawnwoods may have an influence on the expected durability.

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: requires appropriate 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: high risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

Note: Drying must be handled with care in order to reduce the risks of distortion.

## SAWING AND MACHINING

Blunting effect: normal

Sawteeth recommended: ordinary or alloy steel

Cutting tools: ordinary

Peeling: not recommended or without interest

Slicing: nood

Note: Filling is recommended in order to obtain a good finish.

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: no information available

Note: Pre-boring necessary in presence of highly interlocked grain. Tendency to end-splitting.

## 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

Hydraulic works (fresh water)

Sleepers

Vehicle or container flooring

Sliced veneer

Exterior panelling

Stakes

Bridges (parts in contact with water or ground)

Industrial or heavy flooring

Exterior joinery

Heavy carpentry

Poles

Bridges (parts not in contact with water or ground)

## MAIN LOCAL NAMES

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<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Brazil (Amazon)	MACUCU DA CATINGA	Brazil (Amazon)	MACUCU DE PACA
Brazil (Amazon)	MACUCU DO BAIXO		

