

Family: FABACEAE (angiosperm)

Scientific name(s): Andira spp.

Commercial restriction: no commercial restriction

## WOOD DESCRIPTION

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

Note: Pink brown to red brown, bands of light coloured parenchyma tissue give this wood a distinctive figure. Presence of internal stresses and wind shakes.

## LOG DESCRIPTION

Diameter: from 60 to 90 cm  
 Thickness of sapwood: from 3 to 5 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 *:	0,86	0,09
Monnin hardness *:	8,8	2,0
Coeff. of volumetric shrinkage:	0,65 %	0,10 %
Total tangential shrinkage (TS):	7,3 %	0,7 %
Total radial shrinkage (RS):	4,6 %	0,6 %
TS/RS ratio:	1,6	
Fiber saturation point:	23 %	
Stability:	poorly stable	

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	72 MPa	12 MPa
Static bending strength *:	128 MPa	24 MPa
Modulus of elasticity *:	20170 MPa	4724 MPa

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

Musical quality factor: 140 measured at 2880 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

Fungi (according to E.N. standards): class 2 - 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 4 - in ground or fresh water contact

Species covering the use class 5: Yes

Note: The species *Andira coriacea* is very resistant to decay (class 1); it naturally covers the use class 5 (end-uses in marine environment and in brackish water).

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: rapid to normal

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

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: fairly high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: bad

Slicing: good

Note: It is difficult to obtain a smooth surface in planing because of the alternate bands of hard and soft wood. Splinters may cause infection.

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct (for interior only)

Note: Tends to split when nailing. Gluing must be done with care (dry wood and smooth surfaces).

## COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)

Possible grading: FAS, Select, Common 1, Common 2, Common 4

In French Guiana, the local name of this species is "SAINT MARTIN ROUGE". Grading is done according to local rules "Bois guyanais classés".

Possible grading: Choix 1, choix 2, choix 3, choix 4

## 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)

Interior joinery

Sliced veneer

Bridges (parts not in contact with water or ground)

Wood frame house

Turned goods

Exterior joinery

Exterior panelling

Current furniture or furniture components

Heavy carpentry

Industrial or heavy flooring

Vehicle or container flooring

## MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Brazil	ACAPURANA	Brazil	ALMENDRO DE RIO
Brazil	ANDIRA	Brazil	ANDIRA UCHI
Brazil	ANGELIM	Colombia	CONGO
Ecuador	MOTON	Guyana	BAT SEED
Guyana	KORARO	French Guiana	SAINT MARTIN ROUGE
Mexico	MAQUILLA	Peru	QUINILLO COLORADO
Suriname	RODE KABBES	Trinidad and Tobago	ANGELIN
Venezuela	SARRAPIO MONTANERO		

