

Family: FABACEAE (angiosperm)

Scientific name(s): Alexa grandiflora

Commercial restriction: no commercial restriction

## WOOD DESCRIPTION

Color: light yellow  
Sapwood: not clearly demarcated  
Texture: coarse  
Grain: straight or interlocked  
Interlocked grain: slight  
Note: Heartwood light yellow to reddish brown.

## LOG DESCRIPTION

Diameter: from 60 to 100 cm  
Thickness of sapwood: from 5 to 10 cm  
Floats: no  
Log durability: low (must be treated)

## 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 *:	0,76	0,09
Monnin hardness *:	4,9	1,4
Coeff. of volumetric shrinkage:	0,61 %	0,03 %
Total tangential shrinkage (TS):	10,7 %	1,4 %
Total radial shrinkage (RS):	5,0 %	0,9 %
TS/RS ratio:	2,1	
Fiber saturation point:	30 %	
Stability: poorly stable		

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	60 MPa	8 MPa
Static bending strength *:	96 MPa	9 MPa
Modulus of elasticity *:	15810 MPa	2765 MPa

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

Musical quality factor: 96,9 measured at 2694 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 2 - 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 3 - not in ground contact, outside

Species covering the use class 5: No

Note: The possible presence of few demarcated sapwood 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: use not recommended

## DRYING

Drying rate: slow

Risk of distortion: high risk

Risk of casehardening: yes

Risk of checking: high risk

Risk of collapse: yes

Note: Very difficult to dry. Kiln drying is better than air drying.

Possible drying schedule: 1

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	40	37	82
40	44	38	68
30	44	36	59
20	46	36	52
15	49	37	46

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: not recommended or without interest

Slicing: nood

## ASSEMBLING

Nailing / screwing: good

Gluing: correct (for interior only)

Note: Pre-boring sometimes necessary for heavy wood.

## 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

Blockboard

Boxes and crates

Current furniture or furniture components

Bridges (parts not in contact with water or ground)

Flooring

Wood frame house

Note: Drying problems restrict the use of this wood.

Sliced veneer

Interior joinery

Stairs (inside)

Vehicle or container flooring

Heavy carpentry

Exterior panelling

## MAIN LOCAL NAMES

CountryLocal name

Brazil (Amazon)

FAVA BOLOCHA

CountryLocal name

Brazil (Amazon)

MELANCIEIRA

