

Family: SAPOTACEAE (angiosperm)

Scientific name(s): Gambeya spp.

Chrysophyllum spp. (synonymous)

Commercial restriction: no commercial restriction

Note: Possible confusion with ANINGRE (Aningeria spp.). The name LONGHI regroups several species of the genus Gambeya whose properties and aspect can greatly vary.

## WOOD DESCRIPTION

Color: yellow brown  
Sapwood: not clearly demarcated  
Texture: fine  
Grain: straight or interlocked  
Interlocked grain: slight  
Note: Heartwood pinkish brown becoming yellow brown with air.

## LOG DESCRIPTION

Diameter: from 60 to 80 cm  
Thickness of sapwood: from 3 to 4 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 *:	0,75	0,06
Monnin hardness *:	4,9	1,1
Coeff. of volumetric shrinkage:	0,51 %	0,07 %
Total tangential shrinkage (TS):	8,2 %	0,8 %
Total radial shrinkage (RS):	5,2 %	0,8 %
TS/RS ratio:	1,6	
Fiber saturation point:	31 %	
Stability:	moderately stable	

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	67 MPa	11 MPa
Static bending strength *:	122 MPa	21 MPa
Modulus of elasticity *:	18490 MPa	2562 MPa

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

Musical quality factor: 109 measured at 2937 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 4 - poorly durable

Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)

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

Treatability (according to E.N. standards): class 2 - moderately permeable

Use class ensured by natural durability: class 1 - inside (no dampness)

Species covering the use class 5: No

Note: This species is listed in the European standard NF EN 350-2.

Several species, with different natural durability, are grouped under the name LONGHI. Some species and origins could be used without preservative treatment for end-uses under use class 2. However, commercial lots are usually constituted by blended species. Consequently, it is advisable to use the less durable woods as a point of reference.

## REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate 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: slight risk

Risk of casehardening: no

Risk of checking: high risk

Risk of collapse: no

Note: Kiln drying must be handled slowly and carefully in order to avoid cracks and fungal discolorations.

Possible drying schedule: 2

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	50	47	84
40	50	45	75
30	55	47	67
20	70	55	47
15	75	58	44

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: good

## ASSEMBLING

Nailing / screwing: good

Gluing: correct

## 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

Cabinetwork (high class furniture)  
Interior joinery  
Current furniture or furniture components  
Flooring  
Veneer for back or face of plywood  
Glued laminated  
Stairs (inside)  
Sculpture

Sliced veneer  
Interior panelling  
Turned goods  
Wood-ware  
Wood frame house  
Light carpentry  
Seats

## MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	ABAM	Congo	LONGHI
Ivory Coast	AKATIO	Ivory Coast	ANANDIO
Ivory Coast	ANINGUERI ROUGE	Gabon	M'BEBAME
Ghana	AKASA	Nigeria	EKPIRO
Nigeria	OSAN	Democratic Republic of the Congo	BOPAMBU

