

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Gossweilerodendron balsamiferum

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light brown
Sapwood: not clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight

Note: Possibility of ring shakes or wind shakes in logs.
Wood yellow brown to light brown. Resin exudation. Light peppery odour.

LOG DESCRIPTION

Diameter: from 70 to 110 cm
Thickness of sapwood: from 5 to 10 cm
Floats: yes
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 *:	0,52	0,04
Monnin hardness *:	2,3	0,9
Coeff. of volumetric shrinkage:	0,33 %	0,06 %
Total tangential shrinkage (TS):	5,4 %	0,4 %
Total radial shrinkage (RS):	2,4 %	0,2 %
TS/RS ratio:	2,3	
Fiber saturation point:	27 %	
Stability: stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	40 MPa	6 MPa
Static bending strength *:	74 MPa	15 MPa
Modulus of elasticity *:	10920 MPa	1950 MPa

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

Musical quality factor: 101 measured at 2571 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 2-3 - durable to moderately durable

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

Termites (according to E.N. standards): class S - susceptible

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)

Species covering the use class 5: No

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

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: rapid to normal
 Risk of distortion: no risk or very slight risk
 Risk of casehardening: no
 Risk of checking: no risk or very slight risk
 Risk of collapse: no

Possible drying schedule: 3

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	60	56	81
30	68	58	61
20	74	60	51
15	80	61	41

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
 Note: Resin tends to clog tools. Sawdust sometimes irritant.

ASSEMBLING

Nailing / screwing: good
 Gluing: correct
 Note: Gluing requires care: the wood is acid and can be stained.

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

Veneer for interior of plywood
 Sliced veneer
 Light carpentry
 Glued laminated
 Exterior joinery
 Rolling shutters
 Shingles
 Interior joinery
 Formwork

Veneer for back or face of plywood
 Blockboard
 Boxes and crates
 Moulding
 Current furniture or furniture components
 Ship building (planking and deck)
 Interior panelling
 Exterior panelling
 Wood frame house

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Angola	TOLA BRANCA	Cameroon	SINEDON
Congo	N' TOLA	Congo	TOLA
Congo	TOLA BLANC	Gabon	AGBA
Gabon	EMOLO	Nigeria	AGBA
Democratic Republic of the Congo	N' TOLA	Democratic Republic of the Congo	TOLA
Germany	AGBA	Germany	TOLA BRANCA
United Kingdom	AGBA		

