

Common name:	GREENHEART
Family:	LAURACEAE
Scientific name(s):	Chlorocardium rodiaei Ocotea rodiaei (synonymous)
Note:	In Surinam, the name GROENHART is also used for IPE squared timber and square edged boards.

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 80 to 100 cm
Thickness of sapwood:	from to cm
Floats:	no
Durability in forest :	Good
	Colour: Yellow brown
	Sapwood: Clearly demarcated
	Texture: Fine
	Grain: Straight
	Interlocked grain: Absent
Note:	Very thick sapwood; heartwood yellow brown to dark olive brown, with sometimes irregular darker veins.

PHYSICAL PROPERTIES	MECHANICAL PROPERTIES			
Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.				
	mean	standard deviation	mean	standard deviation
Density *:	0.97 g/cm ³			
Monnin hardness*:	19.8		Crushing strength *:	98 MPa
Coef of volumetric shrinkage:	0.36 %		Static bending strength *:	217 MPa
Total tangential shrinkage:	8.2 %		Modulus of elasticity *:	30400 MPa
Total radial shrinkage:	7.5 %			
Fibre saturation point:	40 %			
Stability:	Moderately stable to poorly stable (* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)			

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.

Fungi:	Class 1 - very durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class D - Durable	
Treatability:	4 - not permeable	
Biological hazard class*:	4 - in ground or fresh water contact or high dampness	
Note:	This species is listed in the European standard NF EN 350-2. Due to its high specific gravity and hardness, this species naturally covers the biological hazard class 5 (end-uses in marine environment or in brackish water).	

COUNTRIES - LOCAL NAMES

Countries	Local names
Brazil	BIBIRU
Brazil	ITAUBA BRANCA
Guyana	BIBIRU
Guyana	DEMERARA
Guyana	GREENHEART
Surinam	BEEBEROE
Surinam	GROENHART
Surinam	SIPIROE
Venezuela	VIRUVIRU

GREENHEART

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Does not require any preservative treatment
In case of permanent humidification risk:	Does not require any preservative treatment

DRYING

Possible drying schedule

Drying rate:	Slow	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	Slight risk				
Risk of casehardening:	No				
Risk of checking:	Slight risk				
Risk of collapse:	No	30	42	41	94
		25	42	39	82
		20	48	43	74
		15	48	43	74

This schedule is given for information only and is applicable to thickness < 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:	Not recommended or without interest
Slicing:	Not recommended or without interest
Note:	Sawdust may cause allergies.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Gluing must be done with care (very dense wood).

END-USES

Main known end-uses; they must to be implemented according to the code of practice.

Important remark: some end-uses are mentioned for information (traditional, regional or ancient end-uses).

Note:	Although not very used in France, GREENHEART is one of the most suitable species for end-uses in marine environment. Species resistant to acids. GREENHEART is also used for billiard cue.
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Hydraulic works (seawater)
Hydraulic works (fresh water)
Ship building
Cooperage
Bridges (parts in contact with water or ground)
Bridges (parts not in contact with water or ground)
Heavy carpentry
Industrial or heavy flooring
Sleepers
Turned goods
Posts
