

Common name:	CORAÇÃO DE NEGRO
Family:	CAESALPINIACEAE
Scientific name(s):	Swartzia ingifolia Swartzia grandifolia Swartzia leiocalycina Swartzia panacoco
Note:	CORAÇÃO DE NEGRO includes all the species with black heart belonging to the genus Swartzia in South America.

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 40 to 60 cm	Colour:	Dark brown
Thickness of sapwood:	from 3 to 8 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Medium
Durability in forest :	Good	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Logs have a small diameter with a wide light yellow sapwood. Heartwood deep dark brown with lighter thin streaks.		

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 *:	1.20 g/cm ³	0.07			
Monnin hardness*:	18.4	4.1	Crushing strength *:	110 MPa	14
Coef of volumetric shrinkage:	0.82 %	0.06	Static bending strength *:	202 MPa	23
Total tangential shrinkage:	8.3 %	0.6	Modulus of elasticity *:	32700 MPa	2673
Total radial shrinkage:	6.3 %	1.2			
Fibre saturation point:	23 %				
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	
Use class*:	4 - in ground or fresh water contact	
Note:	According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.	

MAIN LOCAL NAMES

Countries	Local names
Brazil	CARRAPATINHO
Brazil	CORAÇÃO DE NEGRO
Brazil	GOMBEIRA
French Guiana	BOIS PERDRIX
French Guiana	FERREOL
French Guiana	PANACOCO
Guyana	AGUI
Guyana	BANYA
Guyana	WAMARA
Surinam	GANDOE
Surinam	IJZERHART
Surinam	ZWART PARELHOUT
Germany	WAMARA
United Kingdom	IRONWOOD
United Kingdom	WAMARA

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:	High risk					
Risk of collapse:	No					
			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 < 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.

Note: Drying must be done slowly and carefully.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Requires power. Difficulties due to hardness.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Poor

END-USES

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

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

Note: Similar to EBONY (Diospyros spp.). End-uses are limited by the small size of logs.

- Musical instruments
- Wind instruments
- Stringed instruments (bow)
- Flooring
- Cabinetwork (high class furniture)
- Turned goods
- Wood-ware
- Current furniture or furniture components
- Sculpture
- Interior panelling
- Sliced veneer
- Arched goods