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

LOG DESCRIPTION

Diameter:	from 40 to 60 cm
Thickness of sapwood:	from 3 to 8 cm
Floats:	no
Durability in forest :	Good
Note:	Logs have a small diameter with a wide light yellow sapwood. Heartwood deep dark brown with lighter thin streaks.

WOOD DESCRIPTION

Colour:	Dark brown
Sapwood:	Clearly demarcated
Texture:	Medium
Grain:	Straight or interlocked
Interlocked grain:	Slight

PHYSICAL 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
Density *:	1.20 g/cm3	0.07
Monnin hardness*:	18.4	4.1
Coef of volumetric shrinkage:	0.82 %	0.06
Total tangential shrinkage:	8.3 %	0.6
Total radial shrinkage:	6.3 %	1.2
Fibre saturation point:	23 %	
Stability:	Moderately stable to poorly stable	

MECHANICAL PROPERTIES

	mean	standard deviation
Crushing strength *:	110 MPa	14
Static bending strength *:	202 MPa	23
Modulus of elasticity *:	32700 MPa	2673

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

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
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 hight dampness

* ensured by natural durability (according EN standards).

COUNTRIES - LOCAL NAMES

Countries	Local names
Brazil	CARRAPATINHO
Brazil	CORAÇAO 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

CORAÇAO DE NEGRO

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

Drying rate:	Slow
Risk of distortion:	Slight risk
Risk of casehardening:	No
Risk of checking:	High risk
Risk of collapse:	No

Possible drying schedule

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

This shedule 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