

Family: CLUSIACEAE (angiosperm)

Scientific name(s): Moronobea coccinea

Commercial restriction: no commercial restriction

Note: Also called MANNIBALLI. Do not confuse MANIL MONTAGNE with MANIL or MANIL MARECAGE (Symphonia globulifera).

WOOD DESCRIPTION

Color: yellow brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight
Interlocked grain: absent

Note: Wood light yellow slightly veined. Grain sometimes wavy in the periphery of logs.

LOG DESCRIPTION

Diameter: from 50 to 80 cm
Thickness of sapwood: from 3 to 5 cm
Floats: no
Log durability: good

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	Mean	Std dev.
Specific gravity *:	0,90	0,05
Monnin hardness *:	10,3	2,8
Coeff. of volumetric shrinkage:	0,68 %	0,04 %
Total tangential shrinkage (TS):	9,5 %	1,2 %
Total radial shrinkage (RS):	4,6 %	0,9 %
TS/RS ratio:	2,1	
Fiber saturation point:	25 %	
Stability:	moderately stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	Mean	Std dev.
Crushing strength *:	68 MPa	9 MPa
Static bending strength *:	143 MPa	15 MPa
Modulus of elasticity *:	26540 MPa	2720 MPa

(*: at 12% moisture content, with 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.

E.N. = Euro Norm

Funghi (according to E.N. standards): class 1 - very durable
Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)
Termites (according to E.N. standards): class M - moderately durable
Treatability (according to E.N. standards): class 3 - poorly permeable
Use class ensured by natural durability: class 4 - in ground or fresh water contact
Species covering the use class 5: No

Note: According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

DRYING

Drying rate: slow

Risk of distortion: high risk

Risk of casehardening: no

Risk of checking: high risk

Risk of collapse: no

Note: Drying requires care (air drying under cover and end-coating). Drying defects mainly with backsawn.

Possible drying schedule: 4

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
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 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: no information available

Slicing: nood

ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)

Possible grading: FAS, Select, Common 1, Common 2, Common 3

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

Heavy carpentry

Exterior joinery

Bridges (parts not in contact with water or ground)

Sleepers

Sliced veneer

Industrial or heavy flooring

Exterior panelling

Current furniture or furniture components

Bridges (parts in contact with water or ground)

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Brazil	ANANI DA TERRA FIRME	Brazil	BACURI DE ANTA
Guyana	CORONOBO	Guyana	MOROMBO-RAI
Guyana	MORONOBO	French Guiana	MANIL MONTAGNE
French Guiana	MANIL PEOU	French Guiana	PARCOURI-MANIL
Suriname	MANNIBALLI	Suriname	MATAKKIE

