Manniballi

Family. Clusiaceae

Botanical Name(s).

Moronobea coccinea

Continent. Latin America

CITES. This species is not listed in the CITES Appendices (Washington Convention 2023).

Notes. Manniballi should not be confused with Manil or Manil marécage (*Symphonia globulifera*).

Description of logs

Diameter. From 50 to 80 cm

Thickness of sapwood. From 3 to 5 cm

Floats. No

Log durability. Good

Description of wood

Colour reference. Yellow brown

Sapwood. Clearly demarcated

Texture. Medium

Grain. Straight

Interlocked grain. Absent

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

Half-quarter sawn

Quarter sawn

Physics and mechanics

The properties indicated are for mature wood. These properties may vary significantly depending on the origin and growing conditions of the wood.

Property	Average value
Specific gravity[1]	0.90
Monnin hardness[1]	10.3
Coefficient of volumetric shrinkage	0.68 % per %
Total tangential shrinkage (St)	9.5 %
Total radial shrinkage (Sr)	4.6 %
Ratio St/Sr	2.1
Fibre saturation point	25 %
Thermal conductivity (λ)	0.29 W/(m.K)
Lower heating value	
Crushing strength[1]	68 MPa
Static bending strength[1]	143 MPa
Modulus of elasticity[1]	26,540 MPa

[1] *At 12 % moisture content, with 1 MPa = 1 N/mm*

Last update date: 07/01/2024

Natural durability and preservation

Resistance to fungi. Class 1 - very durable

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class M - moderately durable

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 4 - in ground or fresh water contact

Notes. 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. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Does not require any preservative treatment

Drying

Drying rate. Slow

Risk of distorsion. High risk

Risk of casehardening. No known specific risk

Risk of checking. High risk

Risk of collapse. No known specific risk

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	40	86	17.0
Prewarm 2	4	> 50	43	85	16.5
Drying		> 50	45	83	15.7
		50 - 40	45	80.0	14.6
		40 - 35	45	77.0	13.8
		35 - 30	45	74.0	12.9
		30 - 27	47	69.0	11.5
		27 - 24	49	61.0	9.9
		24 - 21	50	52.0	8.4
		21 - 18	53	48.0	7.7
		18 - 15	56	41.0	6.6
		15 - 12	59	36.0	5.9
		12 - 9	61	30.0	5.0
		9 - 6	65	29.0	4.7
Conditioning	8		58	(3)	(2)
Cooling	(1)		Stop	(3)	(2)

(1)) Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

(2) UGL = final H% x 0,8 to 0,9.

(3) Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.

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Sawing and machining

Blunting effect. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Ordinary

Peeling. Not recommended or without interest

Slicing. Good

Assembling

Nailing and screwing. Good but pre-boring necessary

Notes. High specific gravity: gluing must be especially performed in compliance with the code of practice.

Commercial grading

Appearance grading for sawn timbers.

According to ATIBT grading rules, possible grade: FAS (First And Second), n°1 Common and select, n°2 Common

Visual grading for structural applications

No visual grading for structural applications

Fire safety

Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)
Thickness < 14 mm: M4 (easily inflammable)

Euroclasses grading. D-s2, d0

Default grading for solid wood, according to requirements of European standard EN 14081-1+A1 (August 2019). It concerns structural graded timber in vertical uses and ceiling with mean density upper 0.35 and thickness upper 22 mm.

End-uses

- Bridges (parts in contact with water or ground)
- Bridges (parts not in contact with water or ground)
- Current furniture or furniture components
- Decking
- Exterior joinery
- Exterior panelling
- Heavy carpentry
- Industrial or heavy flooring
- Sleepers
- Sliced veneer

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Console table in Manniballi – by Dissi, Rémire-Montjoly (French Guiana).
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Main local names

Country	Local name
Brazil	Anani da terra firme
Brazil	Bacuri de anta
French Guiana	Manil montagne
French Guiana	Manil peou
French Guiana	Parcouri-manil
Guyana	Coronobo
Guyana	Morombo-rai
Guyana	Moronobo
Suriname	Manniballi
Suriname	Matakkie

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