Common name: MORA

Family: CAESALPINIACEAE

Scientific name(s): Mora excelsa

Mora gonggrijpii Mora megistosperma Mora paraensis

LOG DESCRIPTION WOOD DESCRIPTION

Diameter: from 60 to 150 cm Colour: Red brown

Thickness of sapwood: from 5 to 15 cm Sapwood: Clearly demarcated

Floats: no Texture: Medium

Durability in forest: Good Grain: Interlocked
Interlocked grain: Marked

Note: Heartwood pinkish brown to red brown with sometimes thin 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
Density *:	1.03 g/cm	3 0.03			deviation
Monnin hardness*:	8.6	2.1	Crushing strength *:	80 MPa	6
Coef of volumetric shrinkage	: 0.68 %	0.04	Static bending strength *:	141 MPa	13
Total tangential shrinkage:	10.0 %	1.5	Static bending strength .	141 WII a	13
Total radial shrinkage:	6.5 %	1.1	Modulus of elasticity *:	18940 MPa	2356
Fibre saturation point:	26 %				
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Stability: Moderately stable to poorly stable (\*: 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: 3 - poorly 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	PRACUUBA
Brazil	PRACUUBA BRANCA
Brazil	PRACUUBA VERMELHA
Colombia	NATO
Colombia	NATO ROJO
Ecuador	NATO
French Guiana	MORA
Guyana	MORA
Guyana	MORABUKEA
Panama	ALCORNOQUE
Surinam	MORA
Surinam	MORABOEKEA
Trinidad and Tobago	MORA
Venezuela	MORA

#### **MORA**

#### REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: In case of temporary humidification risk: In case of permanent humidification risk:

Does not require any preservative treatment Does not require any preservative treatment Does not require any preservative treatment

DRYING Possible dr			ng schedule			
Drying rate: Risk of distortion: Risk of casehardening: Risk of checking: Risk of collapse:	Slow High risk No High risk Yes	M.C. (%)	Tempera dry-bulb	ture (°C) wet-bulb	Air humidity (%)	
		Green 40 30 20 15	40 44 44 46 49	37 38 36 36 37	82 68 59 52 46	

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: Slow and careful drying recommended to reduce defects.

### 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: Hard to saw due to hardness and interlocked grain.

## **ASSEMBLING**

Nailing / Screwing: Good but pre-boring necessary
Gluing: Correct (for interior only)

Note: Gluing requires 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 mentionned for information (traditional, regional or ancient end-uses).

Note: Excellent to produce charcoal.

Sleepers

Heavy carpentry

Hydraulic works (fresh water)

Bridges (parts in contact with water or ground)

Industrial or heavy flooring

**Posts** 

Bridges (parts not in contact with water or ground)

Turned goods

Tool handles (resilient woods)