

Common name:	IROKO
Family:	MORACEAE
Scientific name(s):	Milicia excelsa Milicia regia

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 80 to 100 cm
Thickness of sapwood:	from 5 to 10 cm
Floats:	no
Durability in forest :	Moderate (treatment recommended)
Note:	Yellow brown to more or less brown with golden glints. Ribbon like aspect on quartersawn, darker veins on slab. Possible presence of very hard white calcium carbonate deposits, sometimes surrounded by a darker colour.

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	
Density *:	0.64 g/cm <sup>3</sup>	0.06	
Monnin hardness*:	4.1	0.9	Crushing strength *:
Coef of volumetric shrinkage:	0.44 %	0.07	54 MPa
Total tangential shrinkage:	5.4 %	0.7	Static bending strength *:
Total radial shrinkage:	3.5 %	0.4	87 MPa
Fibre saturation point:	23 %		Modulus of elasticity *:
Stability:	Moderately stable		12840 MPa
			2496
			(* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> )

**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 1-2 very durable to 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*:	3 - not in ground contact, outside	
Note:	<p>This species is listed in the European standard NF EN 350-2.</p> <p>The heartwood does not cover the use class 4 required for end-uses in contact with permanent humidity (example: contact with ground). On the other hand, if the constructive system is well-drained, without water trap, this species can be used outside without any treatment.</p> <p>Heartwood is hardly permeable to preservative products.</p> <p>This species naturally covers the use class 5 (end-uses in marine environment or in brackish water) due to its high specific gravity and hardness.</p> <p>According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.</p>	

MAIN LOCAL NAMES			
Countries	Local names	Countries	Local names
Angola	MOREIRA	Ghana	ODOUM
Benin	LOKOTIN	Guinea	SIMME
Cameroon	ABANG	Liberia	SEMLI
Congo	KAMBALA	Mozambique	MUFULA
Côte d'Ivoire	IROKO	Mozambique	TULE
Dem Rep of Congo	KAMBALA	Nigeria	ROKKO
Dem Rep of Congo	LUSANGA	Sierra Leone	SEMLI
Dem Rep of Congo	MOKONGO	Belgium	KAMBALA
Dem Rep of Congo	MOLOUNDOU		
Equatorial Guinea	ABANG		
Gabon	ABANG		
Gabon	MANDJI		

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## IROKO

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### REQUIREMENT OF A PRESERVATIVE TREATMENT

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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

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### DRYING

#### Possible drying schedule

Drying rate:	Normal	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	Slight risk				
Risk of casehardening:	No				
Risk of checking:	No risk or very slight risk	Green	50	47	84
Risk of collapse:	No	40	50	45	75
		30	55	47	67
		20	70	55	47
		15	75	58	44

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: Spacer sticks often leave marks. A vertical surface drying is recommended before stacking.

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### SAWING AND MACHINING

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Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Good
Slicing:	Good
Note:	The calcium carbonate deposits in some logs severely damage tools. Very irritant sawdust. Risks of tearing (irregular grain).

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### ASSEMBLING

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Nailing / Screwing:	Good
Gluing:	Correct

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### 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).

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Note: Filling recommended. Wood sometimes resistant to wood finish product: IROKO contains a non-saturated phenolic compound, the chlorophorin, which is a powerful anti-oxidant. It is then necessary to use paints or varnishes without free siccative oil, it is to say, synthetic resin based paints or varnishes such as vynilic paints or polyurethane varnishes that can also be used as undercoat.

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Exterior joinery	Bridges (parts not in contact with water or ground)
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Interior joinery

Flooring

Sliced veneer

Ship building (planking and deck)

Interior panelling

Cabinetwork (high class furniture)

Turned goods

Current furniture or furniture components

Light carpentry

Cooperage

Glued laminated

Stairs (inside)

Veneer for interior of plywood

Veneer for back or face of plywood

Vehicle or container flooring

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