Common name:	SIPO
Family:	MELIACEAE
Scientific name(s):	Entandrophragma utile

LOG DESCRIPTION

Diameter:	from 60 to 120 cm
Thickness of sapwood:	from 2 to 6 cm
Floats:	yes
Durability in forest :	Moderate (treatment recommended)
Note:	Some logs are not floatable.

WOOD DESCRIPTION

Colour:	Red brown
Sapwood:	Clearly demarcated
Texture:	Medium
Grain:	Interlocked
Interlocked grain:	Slight

Wood pinkish brown to red brown slightly purplish, with moiré shades. Ribbon like aspect on quartersawn. Irregular grain.

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 *:	0.62 g/cm3	0.04
Monnin hardness*:	3.0	0.4
Coef of volumetric shrinkage:	0.42 %	0.06
Total tangential shrinkage:	6.4 %	0.7
Total radial shrinkage:	4.6 %	0.7
Fibre saturation point:	30 %	
Stability:	Moderately stable to stable	
Note:	Hardness varies from soft to fairly hard.	

MECHANICAL PROPERTIES

	mean	standard deviation
Crushing strength *:	56 MPa	6
Static bending strength *:	91 MPa	11
Modulus of elasticity *:	13240 MPa	2547

(* : 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 2-3 durable to moderately durable
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)
Termites:	Class M - Moderately durable
Treatability:	4 - not permeable
Biological hazard class*:	2 - not in ground contact, under cover (dampness possible)
Note:	This species is listed in the European standard NF EN 350-2.

* ensured by natural durability (according EN standards).

COUNTRIES - LOCAL NAMES

Countries	Local names
Angola	KALUNGI
Cameroon	ASSENG-ASSIE
Côte d'Ivoire	SIPO
Dem Rep of Congo	KALUNGI
Dem Rep of Congo	LIBOYO
Equatorial Guinea	ABEBAY
Gabon	ASSI
Ghana	UTILE
Nigeria	UTILE
Uganda	MUFUMBI
Germany	SIPO-MAHOGANY
United Kingdom	UTILE

SIPO

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Requires appropriate preservative treatment
In case of permanent humidification risk:	Use not recommended

DRYING

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

Possible drying schedule

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	50	47	84
40	50	45	75
30	55	47	67
20	70	55	47
15	75	58	44

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: The risks of distortion increase in presence of highly interlocked grain especially during kiln drying. Original shakes tend to extend.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Tendency to tearing due to interlocked grain.

ASSEMBLING

Nailing / Screwing:	Good
Gluing:	Correct
Note:	Gluing requires care: it can stain 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: Filling is recommended in order to obtain a better finish.

Sliced veneer
Current furniture or furniture components
Cabinetwork (high class furniture)
Exterior joinery
Interior joinery
Interior panelling
Veneer for back or face of plywood
Moulding
Open boats
Flooring
Stairs (inside)
Rolling shutters
Light carpentry
Glued laminated