Common name:	SAPELLI
Family:	MELIACEAE
Scientific name(s):	Entandrophragma cylindricum

LOG DESCRIPTION

Diameter:	from 70 to 120 cm
Thickness of sapwood:	from 4 to 8 cm
Floats:	yes
Durability in forest :	Moderate (treatment recommended)
Note:	Some logs are not floatable.

WOOD DESCRIPTION

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

Wood pinkish brown to copper red brown. Possible presence of ring shakes and blister grains (longitudinal fissure in the shape of barley grain on the curved surface of round timber, generally concealed by the bark and linked to a disfunction in tree growth). Cedar like scent.

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 *:	0.69 g/cm3	0.04
Monnin hardness*:	4.2	1.0
Coef of volumetric shrinkage:	0.47 %	0.06
Total tangential shrinkage:	7.2 %	0.9
Total radial shrinkage:	5.0 %	0.6
Fibre saturation point:	29 %	
Stability:	Moderately stable	

MECHANICAL PROPERTIES

	mean	standard deviation
Crushing strength *:	62 MPa	7
Static bending strength *:	102 MPa	11
Modulus of elasticity *:	13960 MPa	2403

(* : 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 3 moderately durable
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)
Termites:	Class M - Moderately durable
Treatability:	3 - poorly permeable
Use class*:	2 - inside or under cover (dampness possible)
Note:	This species is listed in the European standard NF EN 350-2.

* ensured by natural durability (according EN standards).

MAIN LOCAL NAMES

Countries	Local names
Angola	UNDIANUNO
Cameroon	ASSIE
Cameroon	SAPELLI
Central African Rep	M'BOYO
Congo	UNDIANUNO
Côte d'Ivoire	ABOUDIKRO
Dem Rep of Congo	LIFAKI
Gabon	UNDIANUNO
Ghana	PENKWA
Ghana	SAPELEWOOD
Nigeria	SAPELE
Uganda	MUYOVU
Germany	SAPELLI-MAHOGANY
United Kingdom	SAPELE

SAPELLI

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:	High 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	40	37	82
40	44	38	68
30	44	36	59
20	46	36	52
15	49	37	46

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: Quartersawn drying is slower.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Log turning sawing recommended (internal stresses). Tendency to tearing in planing (interlocked grain). Sanding requires care.

ASSEMBLING

Nailing / Screwing:	Good
Gluing:	Correct
Note:	Gluing must be done with care: it may 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: Light and regular interlocked grain: appreciated for slicing. Highly interlocked grain: troublesome for some end-uses.

Sliced veneer
Cabinetwork (high class furniture)
Current furniture or furniture components
Exterior joinery
Interior joinery
Interior panelling
Veneer for interior of plywood
Veneer for back or face of plywood
Flooring
Stairs (inside)
Ship building (planking and deck)
Light carpentry