Common name:	ESSIA
Family:	LECYTHIDACEAE
Scientific name(s):	Petersianthus macrocarpus Combretodendron macrocarpum (synonymous)

LOG DESCRIPTION

Diameter:	from 60 to 100 cm
Thickness of sapwood:	from 8 to 10 cm
Floats:	no
Durability in forest :	Low (must be treated)
Note:	Unpleasant odour when green. Wood yellowish pink to red brown with variable aspect. Grain straight or wavy.

WOOD DESCRIPTION

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

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 *:	0.80 g/cm3	0.06
Monnin hardness*:	4.0	1.0
Coef of volumetric shrinkage:	0.53 %	0.17
Total tangential shrinkage:	9.2 %	1.2
Total radial shrinkage:	4.7 %	0.7
Fibre saturation point:	36 %	
Stability:	Moderately stable to poorly stable	

	mean	standard deviation
Crushing strength *:	57 MPa	11
Static bending strength *:	103 MPa	19
Modulus of elasticity *:	12870 MPa	2398

(* : 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:	Wide sapwood sensible to insect attacks.

* ensured by natural durability (according EN standards).

MAIN LOCAL NAMES

Countries	Local names
Cameroon	ABING
Congo	MINZU
Côte d'Ivoire	ABALE
Dem Rep of Congo	BOSSOHO
Dem Rep of Congo	WULO
Gabon	ABIN
Gabon	ABING
Ghana	ESIA
Ghana	ESSIA
Nigeria	OWEWE
France	ABALE

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:	Slow
Risk of distortion:	High risk
Risk of casehardening:	No
Risk of checking:	High risk
Risk of collapse:	Yes

Note: Quartersawn recommended especially for thick dimensions. Kiln drying very difficult. It is recommended to dry thin dimensions.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Bad
Slicing:	Good
Note:	Machining more or less easy according to interlocked grain, especially in planing (tearing).

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Poor
Note:	Risks of splits with thin dimensions.

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: Mottled, striated, veined or moiré wood are in great demand for decorative sliced veneer.

Heavy carpentry
Vehicle or container flooring
Sliced veneer