UTILE

Technical Wood Sheet (Entandrophragma utile)

Family: Meliaceae | **Continent:** Africa
Botanical Name(s): Entandrophragma utile.
CITES: This species is not listed in the CITES Appendices (Washington Convention 2023).

DESCRIPTION OF LOGS

Diameter	From 60 to 120 cm
Thickness of sapwood	From 2 to 6 cm
Floats	Yes
Log durability	Moderate (treatment recommended)

DESCRIPTION OF WOOD

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

Notes: Some logs are not floatable. Wood pinkish brown to red brown slightly purplish, with moiré shades. Ribbon like aspect on quartersawn.

PHYSICS AND MECHANICS

Values for mature wood at 12% moisture content. 1 MPa = 1 N/mm²

Property	Avg. value
Specific gravity	0.62
Monnin hardness	3.0
Coef. volumetric shrinkage	0.42 % / %
Total tangential shrinkage (St)	6.4 %
Total radial shrinkage (Sr)	4.6 %
Ratio St/Sr	1.4
Fibre saturation point	30 %
Thermal conductivity (λ)	0.21 W/(m.K)
Lower heating value	18,290 kJ/kg
Crushing strength	56 MPa
Static bending strength	91 MPa
Modulus of elasticity	13,240 MPa

NATURAL DURABILITY & PRESERVATION

Resistance to fungi	Class 2 to 3 — durable to mod. durable
Dry wood borers	Class D — durable*
Resistance to termites	Class M — mod. durable
Treatability	Class 4 — not permeable
Use class	Class 3 — not in ground contact, outside

* sapwood demarcated, risk limited to sapwood

PRESERVATIVE TREATMENT REQUIREMENT

Against dry wood borers	Not required
Temp. humidification	Requires appropriate preservative treatment
Perm. humidification	Use not recommended

SAWING AND MACHINING

Blunting effect	Normal
Sawteeth recommended	Ordinary or alloy steel
Cutting tools	Ordinary
Peeling / Slicing	Good / Good

Notes: Tendency to tearing due to interlocked grain.

ASSEMBLING

Nailing and screwing	Good

COMMERCIAL GRADING

Appearance grading for sawn timbers. According to the ATIBT grading rules (2017), the main choices are: FAS (First And Second), n°1 Common and select, n°2 Common (see details of these rules on the ATIBT website). Visual grading for structural applications No visual grading for structural applications

DRYING

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

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

FIRE SAFETY

Thickness > 14 mm	M3 (mod. inflammable)
Thickness < 14 mm	M4 (easily inflammable)
Euroclasses grading	D-s2, d0

MAIN LOCAL NAMES

Angola	Kalungi
Cameroon	Asseng-assié
Central African Republic	Bokoi
Congo	Kalungi
Côte d'Ivoire	Sipo
Democratic Republic of the Congo	Kalungi / Liboyo
Equatorial Guinea	Abebay
Gabon	Assi
Germany (importated tropical timber)	Sipo-mahogany
Ghana	Utile
Nigeria	Utile
Uganda	Mufumbi
United Kingdom (importated tropical timber)	Utile

END-USES

Cabinetwork · Current furniture or furniture components · Exterior joinery · Flooring · Glued laminated · Indoor staircases · Interior joinery · Interior panelling · Light carpentry · Moulding · Open boats · Rolling shutters · Sliced veneer · Veneer for back or face of plywood