KOSIPO

Technical Wood Sheet (Entandrophragma candollei)

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

DESCRIPTION OF LOGS

Diameter	From 60 to 150 cm
Thickness of sapwood	From 4 to 8 cm
Floats	No
Log durability	Moderate (treatment recommended)

DESCRIPTION OF WOOD

Colour reference	Red brown
Sapwood	Clearly demarcated
Texture	Coarse
Grain	Straight or interlocked
Interlocked grain	Slight

Notes: Red brown with purplish glints. Darkens with light. Deposits of black resin in the pores. 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	0.69
Monnin hardness	3.3
Coef. volumetric shrinkage	0.42 % / %
Total tangential shrinkage (St)	6.7 %
Total radial shrinkage (Sr)	4.8 %
Ratio St/Sr	1.4
Fibre saturation point	32 %
Thermal conductivity (λ)	0.23 W/(m.K)
Lower heating value	18,640 kJ/kg
Crushing strength	53 MPa
Static bending strength	87 MPa
Modulus of elasticity	11,190 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 3 — poorly 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	High
Sawteeth recommended	Stellite-tipped
Cutting tools	carbide
Peeling / Slicing	Good / Good

Notes: Requires power. Sometimes difficulties due to interlocked grain (tearing). Blunting effect varies from quite high to very high (silica).

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 to slow
Risk of distortion	High risk
Risk of casehardening	No known specific risk
Risk of checking	No risk or very slight risk
Risk of collapse	No known specific risk

Notes: The drying of backsawn is more difficult and slower with higher risks of distortion. Quartersawn well dry is recommended for end-uses in exterior.

FIRE SAFETY

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

MAIN LOCAL NAMES

Angola	Lifuco
Cameroon	Atom-assié
Central African Republic	Bakanga
Congo	Diamuni
Côte d'Ivoire	Kosipo
Democratic Republic of the Congo	Impompo
Gabon	Étom
Germany (importated tropical timber)	Kosipo-mahogany
Ghana	Kosipo / Penkwa-akowaa
Nigeria Heavy	sapele
Nigeria	Omu
United Kingdom (importated tropical timber)	Omu

END-USES

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