

Dakamaa

Family. Leguminosae (Caesalpiniaceae)

Botanical Name(s).

Dimorphandra polyandra

Dimorphandra hohenkerkii (synonymous)

Dimorphandra p.p.

Continent. Latin America

CITES. This species is not listed in the CITES Appendices (Washington Convention 2023).

Description of logs

Diameter. From 60 to 75 cm

Thickness of sapwood. From 4 to 6 cm

Floats. No

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Brown

Sapwood. Not clearly demarcated

Texture. Coarse

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Logs are frequently irregularly shaped. Frequent brittleheart. Wood light yellow when sawn, quickly turning light brown to brown or reddish brown. Grain usually straight but sometimes slight irregular interlocked grain.

Physics and mechanics

The properties indicated are for mature wood. These properties may vary significantly depending on the origin and growing conditions of the wood.

Property	Average value
Specific gravity ¹	0.71
Monnin hardness ¹	3.9
Coefficient of volumetric shrinkage	0.57 % per %
Total tangential shrinkage (St)	8.2 %
Total radial shrinkage (Sr)	4.6 %
Ratio St/Sr	1.8
Fibre saturation point	27 %
Thermal conductivity (λ)	0.24 W/(m.K)
Lower heating value	18,770 kJ/kg
Crushing strength ¹	62 MPa
Static bending strength ¹	107 MPa
Modulus of elasticity ¹	15,100 MPa

¹ At 12 % moisture content, with 1 MPa = 1 N/mm



Quarter sawn



Half-quarter sawn

Natural durability and preservation

Resistance to fungi. Class 3 - moderately durable

Resistance to dry wood borers. Class S - susceptible (risk in all the wood)

Resistance to termites. Class M - moderately durable

Treatability. Class 2 - moderately permeable

Use class ensured by natural durability.

Class 2 - inside or under cover (dampness possible)

Requirement of a preservative treatment

Against dry wood borer. Requires appropriate preservative treatment

In case of temporary humidification. Requires appropriate preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Normal

Risk of distorsion. High risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Notes.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	50	87	17.0
Prewarm 2	4	> 50	50	86	16.5
Drying		> 50	53	85	15.7
		50 - 40	53	82.0	14.6
		40 - 35	54	78.0	13.4
		35 - 30	55	77.0	12.9
		30 - 27	57	73.0	11.9
		27 - 24	58	68.0	10.7
		24 - 21	60	61.0	9.3
		21 - 18	62	52.0	7.9
		18 - 15	64	43.0	6.6
		15 - 12	65	39.0	6.0
		12 - 9	65	31.0	5.0
		9 - 6	65	28.0	4.5
Conditioning	8		58	(3)	(2)
Cooling	(1)		Stop	(3)	(2)

(1)) Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

(2) UGL = final H% x 0,8 to 0,9.

(3) Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.

Sawing and machining

Blunting effect. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Ordinary

Peeling. Not recommended or without interest

Slicing. Not recommended or without interest

Notes. Possible presence of internal stresses. Low yield < 30 % (brittleheart).

Assembling

Nailing and screwing. Good

Commercial grading

Appearance grading for sawn timbers.

According to ATIBT grading rules, possible grade: FAS (First And Second), n°1 Common and select, n°2 Common

Visual grading for structural applications

No visual grading for structural applications

Fire safety

Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)

Thickness < 14 mm: M4 (easily inflammable)

Euroclasses grading. D-s2, d0

Default grading for solid wood, according to requirements of European standard EN 14081-1+A1 (August 2019).

It concerns structural graded timber in vertical uses and ceiling with mean density upper 0.35 and thickness upper 22 mm.

End-uses

- Boxes and crates
- Current furniture or furniture components
- Exterior joinery
- Interior joinery
- Light carpentry

Main local names

Country	Local name
French Guiana	Aieoueko
Guyana	Dakama
Suriname	Anjama