



TECHNICAL SPECIFICATIONS

Common Name	Cumaru
Scientific name	<i>Dipteryx odorata</i> (Aubl.) Willd.
Family	Fabaceae
Origin	América (Central e do Sul)
Main local names	(I, F) Tonka (P) Cumaru
Other designations	Almendo Ebo Almendrillo Sarrapia Kumaru Charapilla Champanha

DISTRIBUTION

Regions	Bolivia, Brazil, Colombia, Guyana, Peru, Venezuela, Suriname.
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WOOD DESCRIPTION

Sapwood	Differentiated, yellowish-white.	
Heartwood	Color	medium to dark brown, sometimes with a reddish or purplish hue.
	Grain	interlocked,.
	Texture	medium.

PHYSICAL AND MECHANICAL PROPERTIES

DENSITY	kg/m³	
Average dried weight	MVverde	1000-1150
At 12% relative humidity	MV12	1070
LINEAR RETRACTION	%	

Tangential	(T%)	7,9
Radial	(R%)	5,5
Axial	(A%)	dnd
Volumetric retraction	(V%)	12
shrinkage coefficient (for 1% less humidity)	(%)	0,73
Anisotropy	(T/R)	1,4
Fiber saturation point	(%)	22
BREACH CONTRACTION		N/mm²
Crushing strength	C12	105
Axial traction	T12	dnd
Static bending strength	F12	199
Modulus of elasticity	E12	22 000
Monnin hardness		13,1 mm ⁻¹
Thermal conductivity		0,24 w/m.k
Toughness	High	

* dnd – dados não disponíveis - (data not available)

PLACEMENT IN WORK AND TRANSFORMATION

Solid wood		
Process:		Observation:
Sawdust	^	Easy
Drying	^	Easy, but slow
Machining	--	
Nailing	^	Good but pre-boring necessary
Gluing	v	Difficult
Finishing	--	If the grain is not too interlocked, Cumaru can be surface-planed to a smooth finish.

FIRE SAFETY

Euroclasses grading	
D s2 d0	Grading for solid wood, according to requirements of European standard EN 14081-1 anexo C. It concerns structural graded timber in vertical uses with mean density upper 0,35 and thickness upper 22 mm.

NATURAL DURABILITY AND TREATABILITY

Natural durability	
Funghi	Very durable (Classe I)
Beetles	Durable (Classe D)
Termites	Durable (Classe D)
Impregnability	Not permeable (Class 4)
Class of use	In ground or fresh water contact (Class 4)

END-USES

beams	linings	bridges
rafters	piles	Furniture
piles	props	turning
slats	posts	heavy construction
floors	bodywork	port facilities
wainscoting	Shipbuilding	interior carpentry

GENERAL OBSERVATIONS

Unpleasant odor when freshly cut;

Its standard color is homogeneous and does not undergo oxidation alteration;

It has excellent dimensional stability.

BIBLIOGRAPHIC REFERENCES

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EN 350 (2016) – Durability of wood and wood-based products - Testing and classification of the durability to biological agents of wood and wood-based materials.