Basralocus

Family. Leguminosae (Caesalpiniaceae)

Botanical Name(s).

Dicorynia guianensis

Dicorynia paraensis (synonymous)

Continent. Latin America

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

Quarter sawn

Half-quarter sawn

Description of logs

Diameter. From 50 to 90 cm

Thickness of sapwood. From 2 to 10 cm

Floats. No

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Brown

Sapwood. Clearly demarcated

Texture. Medium

Grain. Straight

Interlocked grain. Absent

Notes. Colour turns bronze brown or purplish brown with air. Sometimes, presence of internal stresses.

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]	0.79
Monnin hardness[1]	5.7
Coefficient of volumetric shrinkage	0.55 % per %
Total tangential shrinkage (St)	8.2 %
Total radial shrinkage (Sr)	5.1 %
Ratio St/Sr	1.6
Fibre saturation point	29 %
Thermal conductivity (λ)	0.26 W/(m.K)
Lower heating value	19,200 kJ/kg
Crushing strength[1]	70 MPa
Static bending strength[1]	121 MPa
Modulus of elasticity[1]	18,350 MPa

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

Natural durability and preservation

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Resistance to fungi. Class 2 - durable

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class M - moderately durable

Treatability. Class 4 - not permeable

Use class ensured by natural durability.

Class 3 - not in ground contact, outside

Notes. This species is listed in the European standard NF EN 350 (2016). Resistance to fungi: moderate to good according to fungi. This species does not cover the use class 4, but it naturally covers the use class 5 (wood permanently or regularly submerged in salt water, sea water or brackish water) owing to its high silica content and its high specific gravity. Resistance to termites ranges from moderately good to good. According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Normal to slow

Risk of distorsion. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Notes. Slow drying recommended in order to reduce risks of checking and distorsion. Risks of casehardening in thick dimension.

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.

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

Sawing and machining

Blunting effect. High

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Good

Notes. Must be sawn green in order to reduce blunting effect. Sawing requires power and a cutting angle of 20° is recommended.

Assembling

Nailing and screwing. Good but pre-boring necessary

Commercial grading

Appearance grading for sawn timbers.

According to NHLA grading rules (2015) Possible grading: FAS, Select, Common 1, Common 2, Common 3 In French Guiana, the local name of this species is "Angélique". Grading is done according to local rules "Bois guyanais classés". Possible grading: choix 1, choix 2, choix 3, choix 4

Visual grading for structural applications

According to European standard EN 1912 (2012) and associated national standards (see explanatory note), strength class D24 can be provided by visual grading. For Basralocus from French Guiana (known as Angélique locally), strength class D50 can also be provided by visual grading according to French standard NF B 52-001-1 (2018).

Fire safety

Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)

Thickness < 14 mm: M4 (easily inflammable)

Euroclasses grading. C-s1, d0

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.
Assigned according to procedures of the European standard EN 13501-1 (décembre 2018).
Relevant European grading report N°RA05-0238D prepared by CSTB.

End-uses

- Bridges (parts not in contact with water or ground)
- Cabinetwork (high class furniture)
- Cooperage
- Current furniture or furniture components
- Exterior joinery
- Flooring
- Heavy carpentry
- Hydraulic works (seawater)
- Indoor staircases
- Industrial or heavy flooring
- Interior joinery
- Interior panelling
- Resistant to one or several acids
- Sculpture
- Ship building (planking and deck)

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- Sliced veneer
- Turned goods
- Vehicle or container flooring
- Veneer for back or face of plywood

Traditional roof structure made of Basralocus (shingles in Wallaba) - Kourou (French Guiana).
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Main local names

Country	Local name
Brazil	Angelica do para
Brazil	Tapaiuna
French Guiana	Angélique
French Guiana	Basralocus
Suriname	Barakaroeballi
Suriname	Basralokus

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