

Gommier

Family. Burseraceae

Botanical Name(s).

Dacryodes excelsa

Dacryodes hexandra (synonymous)

Dacryodes occidentalis

Dacryodes olivifera

Dacryodes peruviana

Dacryodes p.p.

Continent. Latin America

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

Notes. Often confused with BREU (*Protium* spp.).

Description of logs

Diameter. From 50 to 80 cm

Thickness of sapwood. From 3 to 8 cm

Floats. Yes

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Pinkish white

Sapwood. Not clearly demarcated

Texture. Fine

Grain. Interlocked

Interlocked grain. Marked but not frequent

Notes. Wood cream white or pinkish white. 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	0.61
Monnin hardness ¹	3.1
Coefficient of volumetric shrinkage	0.50 % per %
Total tangential shrinkage (St)	8.0 %
Total radial shrinkage (Sr)	5.1 %
Ratio St/Sr	1.6
Fibre saturation point	29 %
Thermal conductivity (λ)	0.21 W/(m.K)
Lower heating value	18,580 kJ/kg
Crushing strength ¹	51 MPa
Static bending strength ¹	92 MPa



Flat sawn



Quarter sawn

Modulus of elasticity ¹	14,320 MPa
------------------------------------	------------

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

Natural durability and preservation

- Resistance to fungi. Class 5 - not durable
- Resistance to dry wood borers. Class S - susceptible (risk in all the wood)
- Resistance to termites. Class S - susceptible
- Treatability. Class 3 - poorly 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. Use not recommended
- In case of permanent humidification. Use not recommended

Drying

- Drying rate. Normal
- Risk of distorsion. Slight risk
- Risk of casehardening. Yes
- Risk of checking. No risk or very 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	83	15.2
		50 - 40	53	80.0	14.1
		40 - 35	54	80.0	13.9
		35 - 30	55	75.0	12.5
		30 - 27	57	70.0	11.0
		27 - 24	58	61.0	9.4
		24 - 21	59	51.0	7.9
		21 - 18	60	47.0	7.3
		18 - 15	61	39.0	6.1
		15 - 12	62	35.0	5.6
		12 - 9	62	30.0	5.0
		9 - 6	62	26.0	4.4
Conditioning	8		55	(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. High

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Good

Notes. Difficulties due to highly interlocked grain. Fairly high to high blunting effect due to silica content.

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
- Interior joinery
- Interior panelling
- Open boats
- Shingles
- Sliced veneer
- Veneer for back or face of plywood
- Veneer for interior of plywood

Main local names

Country	Local name
Ecuador	Anime
Ecuador	Copal
French West Indies	Gommier
French West Indies	Gommier blanc
French West Indies	Gommier de montagne
Puerto Rico	Tabonuco