

Family: BURSERACEAE (angiosperm)

Scientific name(s): *Dacryodes excelsa*
Dacryodes occidentalis
Dacryodes olivifera
Dacryodes peruviana

Commercial restriction: no commercial restriction

Note: Often confused with BREU (*Protium* spp.).

WOOD DESCRIPTION

Color: pinkish white
 Sapwood: not clearly demarcated
 Texture: fine
 Grain: interlocked
 Interlocked grain: marked but not frequent

Note: Wood cream white or pinkish white. Irregular interlocked grain.

LOG DESCRIPTION

Diameter: from 50 to 80 cm
 Thickness of sapwood: from 3 to 8 cm
 Floats: yes
 Log durability: no information available

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	0,61	0,04
Monnin hardness *:	3,1	0,8
Coeff. of volumetric shrinkage:	0,50 %	0,03 %
Total tangential shrinkage (TS):	8,0 %	0,5 %
Total radial shrinkage (RS):	5,1 %	0,6 %
TS/RS ratio:	1,6	
Fiber saturation point:	29 %	
Stability: moderately stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	51 MPa	4 MPa
Static bending strength *:	92 MPa	11 MPa
Modulus of elasticity *:	14320 MPa	2750 MPa

(*: at 12% moisture content, with 1 MPa = 1 N/mm²)

Musical quality factor: 114,3 measured at 2899 Hz

NATURAL DURABILITY AND TREATABILITY

Fungi and termite resistance refers to end-uses under temperate climate. Except for special comments on sapwood, natural durability is based on mature heartwood. Sapwood must always be considered as non-durable against wood degrading agents.

E.N. = Euro Norm

Funghi (according to E.N. standards): class 5 - not durable

Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)

Termites (according to E.N. standards): class S - susceptible

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)

Species covering the use class 5: No

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate preservative treatment

In case of risk of temporary humidification: use not recommended

In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: normal

Risk of distortion: slight risk

Risk of casehardening: yes

Risk of checking: no risk or very slight risk

Risk of collapse: no

Possible drying schedule: 4

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

This schedule is given for information only and is applicable to thickness lower or equal to 38 mm.

It must be used in compliance with the code of practice.

For thickness from 38 to 75 mm, the air relative humidity should be increased by 5 % at each step.

For thickness over 75 mm, a 10 % increase should be considered.

SAWING AND MACHINING

Blunting effect: high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: good

Slicing: good

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

ASSEMBLING

Nailing / screwing: good

Gluings: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)

Possible grading: FAS, Select, Common 1, Common 2, Common 3

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M.3 (moderately inflammable)

Thickness < 14 mm : M.4 (easily inflammable)

Euroclasses grading: D s2 d0

Default grading for solid wood, according to requirements of European standard EN 14081-1 annex C (April 2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper 22 mm.

END-USES

Current furniture or furniture components

Veneer for back or face of plywood

Interior joinery

Open boats

Shingles

Veneer for interior of plywood

Sliced veneer

Interior panelling

Boxes and crates

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>
French West Indies	GOMMIER
French West Indies	GOMMIER DE MONTAGNE
Ecuador	COPAL

<u>Country</u>	<u>Local name</u>
French West Indies	GOMMIER BLANC
Ecuador	ANIME
Puerto Rico	TABONUCO

