

## Catuaém / louro faia

Family. Proteaceae

Botanical Name(s).

*Roupala brasiliensis*

Continent. Latin America

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

### Description of logs

Diameter. From 50 to 70 cm

Thickness of sapwood. From 1 to 4 cm

Floats. Yes

Log durability. Good

### Description of wood

Colour reference. Brown

Sapwood. Clearly demarcated

Texture. Coarse

Grain. Straight to entangled

Interlocked grain. Absent

Notes. Sapwood light reddish brown. Heartwood reddish brown to dark brown. Very characteristic silver figure due to wide and high rays.

### 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 <sup>1</sup>        | 0.70          |
| Monnin hardness <sup>1</sup>         |               |
| Coefficient of volumetric shrinkage  |               |
| Total tangential shrinkage (St)      | 12.3 %        |
| Total radial shrinkage (Sr)          | 6.3 %         |
| Ratio St/Sr                          | 2.0           |
| Fibre saturation point               | 24 %          |
| Thermal conductivity (λ)             | 0.23 W/(m.K)  |
| Lower heating value                  |               |
| Crushing strength <sup>1</sup>       |               |
| Static bending strength <sup>1</sup> |               |
| Modulus of elasticity <sup>1</sup>   |               |

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

### Natural durability and preservation

Resistance to fungi. Class 2 to 3 - durable to moderately durable



Quarter sawn



Half-quarter sawn

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

Resistance to termites. Class D - durable

Treatability. Class 3-4 - poorly or not permeable

Use class ensured by natural durability.

Class 3 - not in ground contact, outside

### 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. Requires appropriate preservative treatment

### Drying

Drying rate. Normal

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.

Suggested drying program.

| Phases              | Duration (H) | MC (%) probes | T (°C) | Rh (%) | UGL (%) |
|---------------------|--------------|---------------|--------|--------|---------|
| <b>Prewarm 1</b>    |              | > 50          | 50     | 87     | 17.0    |
| <b>Prewarm 2</b>    | 4            | > 50          | 50     | 86     | 16.5    |
| <b>Drying</b>       |              | > 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     |
| <b>Conditioning</b> | 8            |               | 58     | (3)    | (2)     |
| <b>Cooling</b>      | (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. No information available

Cutting tools. Ordinary

Peeling. Not recommended or without interest

**Slicing.** Good

**Notes.** Liable to split during machining.

## Assembling

**Nailing and screwing.** Good but pre-boring necessary

## 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

- Cabinetwork (high class furniture)
- Flooring
- Sculpture
- Sliced veneer
- Turned goods
- Wood-ware

**Notes.** Due to very marked silver figure, possible applications in turnery and cabinet work.

## Main local names

| Country    | Local name         |
|------------|--------------------|
| Brazil     | Carvalho           |
| Brazil     | Carvalho do brazil |
| Brazil     | Catucaém           |
| Brazil     | Louro faia         |
| Costa Rica | Danto carne        |
| Ecuador    | Roble              |
| Panama     | Arbol carne        |
| Venezuela  | Chaparro           |