

Red Cabriuva - Balsamo

Scientific name: *Myroxylon balsamum* (L.) Harms., Leguminosae.

Other popular names: balsam, balsam, cabreúva, cabriúva, santos mahogany, balsa oil, balsam oil, brown oil, red oil, balm wood, quinine, cat's blood.

International names: balsam (ATIBT, 1982) (Peru), chino cedar, chirraca, estoraque (Peru), incienso, nabal (Mexico), balsam palo, quina (Argentina), sandalwood (Costa Rica), tache, tolú (Colombia).

Occurrence:

- Brazil: Maranhão, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Paraná, Rondônia, São Paulo.
- Other countries: Central America, Argentina, Colombia, Ecuador, Mexico, Paraguay, Peru, Venezuela.

GENERAL FEATURES

Sensory characteristics: heartwood and sapwood distinguished by color, reddish-brown heartwood; pleasant noticeable smell and slightly astringent taste; high density; hard to cut; great reverse; medium texture; irregularly glossy surface.

Macroscopic Anatomical Description:

- Axial parenchyma: visible only under lens, sparse vasicentric paratracheal, occasionally aliform with very short extensions.
- Rays: visible only under lens on top and tangential face, where their stratification is regular (4 per mm); fine; numerous.
- Vessels: visible to the naked eye, small to medium; numerous; diffuse porosity; solitary and multiples of 2 to 4; clogged with oil-resin.
- Growth layers: indistinct, sometimes individualized by darker tangential fibrous zones or marginal parenchyma.

Source: (IPT, 1983; IPT, 1989a)

DURABILITY / TREATMENT

Natural Durability: Wood with high resistance to rotting fungi. (IPT, 1989a) Has resistance to xylophagous fungi and insects. (Berni et al., 1979) In field trials with soil piles, this Wood had an average life of eight years. (Lepage, 1983)

Treatability: Heartwood and sapwood are waterproof. (Chudnoff, 1979) Presents low retention of preservative substances. (IPT 1989a)

PROCESSING CHARACTERISTICS

Workability: Red cabbage wood is difficult to work with, but has a good finish.

Although it has no silica, it causes wear on the tools. (Chudnoff, 1979)

Drying: No information available on drying.

PHYSICAL PROPERTIES

Mass Density (ρ):

- Apparent at 15% humidity ($\rho_{ap, 15}$): 950 kg / m³ (IPT, 1989a)
- Basic (basic): 780 kg / m³ (Jankowsky, 1990)

Contraction:

- Radial: 4.0%
- Tangential: 6.7%
- Volumetric: 11.0%

Results obtained according to ABNT Standard MB26 / 53 (NBR 6230/85).

Source: (IPT, 1989a)

MECHANICAL PROPERTIES

Flexion:

- Resistance (fM):
 - Green wood: 116.9 MPa
 - Wood at 15% humidity: 132.6 MPa
- Proportionality Limit - Green Wood: 53.0 MPa
- Elasticity Module - Green Wood: 12533 MPa

Results obtained according to ABNT Standard MB26 / 53 (NBR 6230/85).

Source: (IPT 1989a; IPT 1989a)

Parallel Fiber Compression:

- Resistance (fc0):
 - Green wood: 59.5 MPa
 - Wood at 15% humidity: 71.1 MPa
- Moisture influence coefficient: 3.1%
- Proportionality Limit - Green Wood: 39.4 MPa
- Elasticity Module - Green Wood: 15230 MPa

Results obtained according to ABNT Standard MB26 / 53 (NBR 6230/85).

Source: (IPT, 1989a)

Other properties:

- Flexural impact strength - 15% wood (shock):
Work absorbed: 41.4
- Shear - Green Wood: 18.0 MPa
- Hardness janka - Green wood: 10140 N
- Normal fiber traction - Green wood: 11.3 MPa
- Cracking - Green Wood: 1.2 MPa

Results obtained according to ABNT Standard MB26 / 53 (NBR 6230/85).

Source: (IPT, 1989a)

USES

Construction:

- External heavy:
bridge framework
poles
railway sleepers
crosspieces
- Internal Heavy:
rafters
rafters
- Lightweight:
doors
shutters
windows
jambs
- Light internal, decorative:
decorative coating

Floors:

- tacos
- boards
- parquet

Furniture:

- High quality:
decorative furniture

Other Uses:

- turned parts

- transport
- tool handles
- single or extendable stair step
- decorative blades