Family: LECYTHIDACEAE (angiosperm)
Scientific name(s): *Cariniana pyriformis*
Commercial restriction: no commercial restriction

**WOOD DESCRIPTION**

<table>
<thead>
<tr>
<th>Description</th>
<th>Log Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color: brown</td>
<td>Diameter: from 80 to 120 cm</td>
</tr>
<tr>
<td>Sapwood: clearly demarcated</td>
<td>Thickness of sapwood: from 5 to 7 cm</td>
</tr>
<tr>
<td>Texture: medium</td>
<td>Floats: yes</td>
</tr>
<tr>
<td>Grain: straight or interlocked</td>
<td>Log durability: moderate (treatment recommended)</td>
</tr>
<tr>
<td>Interlocked grain: slight</td>
<td></td>
</tr>
</tbody>
</table>

Note: Heartwood pink brown slightly purplish. Sometimes presence of traumatic canals.

**PHYSICAL PROPERTIES**

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Mean</th>
<th>Std dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity *:</td>
<td>0.68</td>
<td>0.03</td>
</tr>
<tr>
<td>Monnin hardness *:</td>
<td>4.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Coeff. of volumetric shrinkage</td>
<td>0.49%</td>
<td>0.06%</td>
</tr>
<tr>
<td>Total tangential shrinkage (TS):</td>
<td>6.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Total radial shrinkage (RS):</td>
<td>4.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td>TS/RS ratio:</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Fiber saturation point:</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>

Stability: moderately stable

**MECHANICAL AND ACOUSTIC PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Mean</th>
<th>Std dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing strength *:</td>
<td>61 MPa</td>
<td>3 MPa</td>
</tr>
<tr>
<td>Static bending strength *:</td>
<td>113 MPa</td>
<td>7 MPa</td>
</tr>
<tr>
<td>Modulus of elasticity *:</td>
<td>13720 MPa</td>
<td>1004 MPa</td>
</tr>
</tbody>
</table>

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

Musical quality factor: 121.4 measured at 2594 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

- Fungi (according to E.N. standards): class 3 - moderately durable
- Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)
- Termites (according to E.N. standards): class D - durable
- 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: does not require any preservative treatment
- In case of risk of temporary humidification: requires appropriate preservative treatment
- In case of risk of permanent humidification: use not recommended
DRYING

Drying rate: normal to slow
Risk of distortion: slight risk
Risk of casehardening: no
Risk of checking: slight risk
Risk of collapse: no
Note: Sometimes high risks of distortion and checking.

Possible drying schedule: 3

<table>
<thead>
<tr>
<th>M.C. (%)</th>
<th>Temperature (°C)</th>
<th>Air humidity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dry-bulb</td>
<td>wet-bulb</td>
</tr>
<tr>
<td>30</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>20</td>
<td>74</td>
<td>60</td>
</tr>
<tr>
<td>15</td>
<td>80</td>
<td>61</td>
</tr>
</tbody>
</table>

This schedule is given for information only and is applicable to thickness lower or equal to 38 mm.
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: nood
Note: Fairly difficult to saw because of its silica content.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct
Note: Tends to split when nailing.

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

Exterior joinery
Cabinetwork (high class furniture)
Veneer for back or face of plywood
Light carpentry
Wood frame house
Flooring
Turned goods

Interior joinery
Interior panelling
Sliced veneer
Glued laminated
Ship building (planking and deck)
Current furniture or furniture components

Note: Substitute for MAHOGANY (Swietenia spp.) and AFRICAN MAHOGANY (Khaya spp.). Filling is required to obtain a good finish.
<table>
<thead>
<tr>
<th>Country</th>
<th>Local name</th>
<th>Country</th>
<th>Local name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>ABARCO</td>
<td>Venezuela</td>
<td>BACU</td>
</tr>
<tr>
<td>Property</td>
<td>Range</td>
<td>Very light</td>
<td>Light</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>0.2-1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monnin hardness</td>
<td>1-20</td>
<td>Very soft</td>
<td>Soft</td>
</tr>
<tr>
<td>Coefficient of volumetric shrinkage (%)</td>
<td>0.3-0.8</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Total tangential shrinkage (%)</td>
<td>4-12</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Total radial shrinkage (%)</td>
<td>2-10</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Crushing strength (MPa)</td>
<td>10-110</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Static bending strength (MPa)</td>
<td>25-200</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Modulus of elasticity (MPa)</td>
<td>6-32</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

**Resistance to fungi**
- Not durable
- Poorly durable
- Moderately durable
- Durable
- Very durable

**Resistance to dry wood insects borers**
- Susceptible
- Durable

**Resistance to termites**
- Susceptible
- Moderately durable
- Durable

**Treatability**
- Not permeable
- Poorly permeable
- Moderately permeable
- Easily permeable

**Stability**
- Poorly stable
- Moderately stable
- Stable

**Fibers Saturation Point**
- 15 %
- 25 %
- 35 %
- 45 %