Family: MYRISTICACEAE (angiosperm)

Scientific name(s): Coelocaryon preussii

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light brown
Sapwood: not demarcated
Texture: medium
 Grain: straight
 Interlocked grain: absent

Note: Sometimes purplish brown veins.

LOG DESCRIPTION

Diameter: from 50 to 80 cm
Thickness of sapwood: 
Floats: yes
Log durability: low (must be treated)

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>
<th>Property</th>
<th>Mean</th>
<th>Std dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity *:</td>
<td>0.33</td>
<td>0.06</td>
<td>Crushing strength *:</td>
<td>38 MPa</td>
<td>7 MPa</td>
</tr>
<tr>
<td>Monnin hardness *:</td>
<td>1.9</td>
<td>0.5</td>
<td>Static bending strength *:</td>
<td>73 MPa</td>
<td>12 MPa</td>
</tr>
<tr>
<td>Coeff. of volumetric shrinkage:</td>
<td>0.44 %</td>
<td>0.11 %</td>
<td>Modulus of elasticity *:</td>
<td>12460 MPa</td>
<td>1488 MPa</td>
</tr>
<tr>
<td>Total tangential shrinkage (TS):</td>
<td>6.9 %</td>
<td>0.8 %</td>
<td>(*: at 12% moisture content, with 1 MPa = 1 N/mm²)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total radial shrinkage (RS):</td>
<td>3.8 %</td>
<td>0.7 %</td>
<td>Stability: moderately stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS/RS ratio:</td>
<td>1.8</td>
<td></td>
<td>Musical quality factor: 117.9 measured at 2791 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber saturation point:</td>
<td>25 %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MECHANICAL AND ACOUSTIC PROPERTIES

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

<table>
<thead>
<tr>
<th>Fungi (according to E.N. standards):</th>
<th>class 5 - not durable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry wood borers:</td>
<td>susceptible - sapwood not or slightly demarcated (risk in all the wood)</td>
</tr>
<tr>
<td>Termites (according to E.N. standards):</td>
<td>class 5 - susceptible</td>
</tr>
<tr>
<td>Treatability (according to E.N. standards):</td>
<td>class 1 - easily permeable</td>
</tr>
<tr>
<td>Use class ensured by natural durability:</td>
<td>class 1 - inside (no dampness)</td>
</tr>
<tr>
<td>Species covering the use class 5:</td>
<td>No</td>
</tr>
</tbody>
</table>

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate 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: rapid
Risk of distortion: no risk or very slight risk
Risk of casehardening: no
Risk of checking: slight risk
Risk of collapse: no

Possible drying schedule: 4

<table>
<thead>
<tr>
<th>M.C. (%)</th>
<th>Temperature (°C)</th>
<th>Air humidity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>dry-bulb</td>
<td>wet-bulb</td>
</tr>
<tr>
<td>50</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>40</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>30</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>15</td>
<td>54</td>
<td>46</td>
</tr>
</tbody>
</table>

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: normal
Sawteeth recommended: ordinary or alloy steel
Cutting tools: ordinary
Peeling: good
Slicing: nod

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to SATA grading rules (1996)
For the "General Purpose Market":
Possible grading for square edged timbers: choix I, choix II, choix III, choix IV
Possible grading for short length lumbers: choix I, choix II
Possible grading for short length rafters: choix I, choix II, choix III
For the "Special Market":
Possible grading for strips and small boards (ou battens): choix I, choix II, choix III
Possible grading for rafters: choix I, choix II, choix III

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

Veneer for interior of plywood
Blockboard
Moulding
Interior joinery
Sliced veneer
Boxes and crates
Exterior panelling
Glued laminated

Veneer for back or face of plywood
Fiber or particle boards
Interior panelling
Current furniture or furniture components
Wood-ware
Exterior joinery
Light carpentry

Note: Could be used as substitute for OKOUME (Aucoumea klaineana) for plywood.
### MAIN LOCAL NAMES

<table>
<thead>
<tr>
<th>Country</th>
<th>Local name</th>
<th>Country</th>
<th>Local name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameroon</td>
<td>NOM ETENG</td>
<td>Congo</td>
<td>KIKUBI-LOMBA</td>
</tr>
<tr>
<td>Gabon</td>
<td>EKOUNE</td>
<td>Gabon</td>
<td>EKUN</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>EKOUNE</td>
<td>Equatorial Guinea</td>
<td>EKUN</td>
</tr>
<tr>
<td>Nigeria</td>
<td>EGBENRIN</td>
<td>Central African Republic</td>
<td>KOLOMEKO</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>LOMBA-KUMBI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Specific gravity</td>
<td>Monnin hardness</td>
<td>Coefficient of volumetric shrinkage (%)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------</td>
<td>-----------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td>0.2</td>
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<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>0.4</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>0.6</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>0.7</td>
<td>6</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>7</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>9</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>1.1</td>
<td>10</td>
<td>1.2</td>
</tr>
</tbody>
</table>

### Resistance to Fungi
- Not durable
- Poorly durable
- Moderately durable
- Durable
- Very durable

### Resistance to Dry Wood Insects Borners
- 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%