**FABACEAE-CAESALPINIOIDEAE** (angiosperm)

**Family:**

Scientific name(s): Amphimas ferrugineus, Amphimas pterocarpoides

Commercial restriction: no commercial restriction

### WOOD DESCRIPTION

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>yellow brown</td>
</tr>
<tr>
<td>Sapwood</td>
<td>not clearly demarcated</td>
</tr>
<tr>
<td>Texture</td>
<td>coarse</td>
</tr>
<tr>
<td>Grain</td>
<td>straight</td>
</tr>
<tr>
<td>Interlocked grain</td>
<td>absent</td>
</tr>
</tbody>
</table>

Note: Heartwood cream white to yellow brown. The presence of parenchyma bands regularly spaced gives an aesthetic aspect to sawnwoods.

### 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>0.82</td>
<td>0.06</td>
</tr>
<tr>
<td>Monnin hardness *:</td>
<td>5.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Coeff. of volumetric shrinkage:</td>
<td>0.69 %</td>
<td>0.05 %</td>
</tr>
<tr>
<td>Total tangential shrinkage (TS):</td>
<td>10.8 %</td>
<td>0.9 %</td>
</tr>
<tr>
<td>Total radial shrinkage (RS):</td>
<td>6.4 %</td>
<td>0.4 %</td>
</tr>
<tr>
<td>TS/RS ratio:</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Fiber saturation point:</td>
<td>30 %</td>
<td></td>
</tr>
</tbody>
</table>

Stability: moderately stable to poorly stable

Note: Hardness varies from fairly hard to hard.

### 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>73 MPa</td>
<td>6 MPa</td>
</tr>
<tr>
<td>Static bending strength *:</td>
<td>128 MPa</td>
<td>8 MPa</td>
</tr>
<tr>
<td>Modulus of elasticity *:</td>
<td>16830 MPa</td>
<td>1420 MPa</td>
</tr>
<tr>
<td>(*: at 12% moisture content, with 1 MPa = 1 N/mm²)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musical quality factor:</td>
<td>101.7</td>
<td></td>
</tr>
</tbody>
</table>

### 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 3 - moderately durable
  - Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)
- Termites (according to E.N. standards): class M - moderately durable
- Treatability (according to E.N. standards): class 4 - not permeable
- Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)
  - Species covering the use class 5: No

Note: This species is listed in the European standard NF EN 350-2. Prone to blue stain.

### 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: slow
Risk of distortion: high risk
Risk of casehardening: yes
Risk of checking: high risk
Risk of collapse: no

Note: Initial surface drying prior to kiln drying is recommended.

Possible drying schedule: 6

<table>
<thead>
<tr>
<th>M.C. (%)</th>
<th>Temperature (°C)</th>
<th>Air humidity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>42</td>
<td>41</td>
</tr>
<tr>
<td>50</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>30</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
<td>51</td>
</tr>
<tr>
<td>15</td>
<td>60</td>
<td>51</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: not recommended or without interest
Slicing: nood

Note: Sawing may require power. Grain tearing in machining.

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

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.

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M.3 (moderately inflammable)
Thickness < 14 mm : M.4 (easily inflammable)

END-USES

Interior joinery: Sliced veneer
Flooring: Interior panelling
Current furniture or furniture components: Wood frame house
Moulding: Boxes and crates

Note: Aspect quite similar to EYONG (Eribroma oblonga).
## 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>EDJIN</td>
<td>Cameroon</td>
<td>EDZIL</td>
</tr>
<tr>
<td>Congo</td>
<td>MUIZI</td>
<td>Ivory Coast</td>
<td>LATI</td>
</tr>
<tr>
<td>Gabon</td>
<td>EDZUI</td>
<td>Ghana</td>
<td>YAYA</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>BOKANGA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Specific Gravity

- 0.2, 0.3 → Very light
- 0.4, 0.5 → Light
- 0.6 → Medium
- 0.7 → Heavy
- 0.8 → Very heavy

### Monnin Hardness

- 1, 2 → Very soft
- 3, 4 → Soft
- 5 → Medium
- 6 → Hard
- 7, 8 → Very hard

### Coefficient of Volumetric Shrinkage (%)

- 0.3, 0.4 → Low
- 0.5 → Medium
- 0.6 → High

### Total Tangential Shrinkage (%)

- 4, 5 → Low
- 6 → Medium
- 7 → High

### Total Radial Shrinkage (%)

- 2 → Low
- 3 → Medium
- 4 → High

### Crushing Strength (MPa)

- 10 → Low
- 20 → Medium
- 30 → High

### Static Bending Strength (MPa)

- 25 → Low
- 50 → Medium
- 75 → High

### Modulus of Elasticity (GPa)

- 6 → Low
- 8 → Medium
- 10 → High

### Resistance to Fungi

- Not durable
- Poorly durable
- Moderately durable
- Durable
- Very durable

### Resistance to Dry Wood Insects Borer

- 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 % → Low
- 25 % → Medium
- 35 % → High
- 45 % → Very high

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**Note:** Dissemination without express authorization is prohibited.