Family: OLACEAE (angiosperm)
Scientific name(s): Coula edulis
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: fine
Grain: straight or interlocked
Interlocked grain: slight

Log durability: no information available

Note: Wood purplish brown, with dark brown veins. Grain sometimes wavy.

PHYSICAL PROPERTIES

Specific gravity *: 1.01 ± 0.07
Monnin hardness *: 7.5 ± 1.7
Coeff. of volumetric shrinkage: 0.63 % ± 0.07 %
Total tangential shrinkage (TS): 8.5 % ± 0.7%
Total radial shrinkage (RS): 4.5 % ± 0.4%
Fiber saturation point: 23 %

MECHANICAL AND ACOUSTIC PROPERTIES

Crushing strength *: 78 MPa ± 14 MPa
Static bending strength *: 142 MPa ± 15 MPa
Modulus of elasticity *: 19490 MPa ± 1978 MPa

Musical quality factor: 101.2 measured at 2422 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 1 - very 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 4 - in ground or fresh water contact
Species covering the use class 5: No

Note: According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment
In case of risk of temporary humidification: does not require any preservative treatment
In case of risk of permanent humidification: does not require any preservative treatment
DRYING

Drying rate: slow
Risk of distortion: high risk
Risk of casehardening: no information available
Risk of checking: high risk
Risk of collapse: no information available

Possible drying schedule: 4

<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>Green</td>
<td>42</td>
<td>39</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: fairly high
Sawteeth recommended: stellite-tipped
Cutting tools: tungsten carbide
Peeling: not recommended or without interest
Slicing: nood
Note: Requires power.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct (for interior only)
Note: Gluing must be done with care (very dense wood).

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

Sleepers
Stakes
Heavy carpentry
Resistant to one or several acids

Poles
Industrial or heavy flooring
Vehicle or container flooring
Sliced veneer
## 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>EWOME</td>
<td>Cameroon</td>
<td>NGOUMA</td>
</tr>
<tr>
<td>Congo</td>
<td>KUMUNU</td>
<td>Ivory Coast</td>
<td>ATTIA</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>COULA</td>
<td>Gabon</td>
<td>EHOUME</td>
</tr>
<tr>
<td>Nigeria</td>
<td>IVIANLEGBE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Wood Properties

#### Specific Gravity
- **0.2** to **1.2**
  - **Very light** to **Very heavy**

#### Monnin Hardness
- **1** to **20**
  - **Very soft** to **Very hard**

#### Coefficient of Volumetric Shrinkage (%)
- **0.3** to **0.8**
  - **Low** to **High**

#### Total Tangential Shrinkage (%)
- **4** to **12**
  - **Low** to **High**

#### Total Radial Shrinkage (%)
- **2** to **10**
  - **Low** to **High**

#### Crushing Strength (MPa)
- **0** to **110**
  - **Low** to **High**

#### Static Bending Strength (MPa)
- **25** to **200**
  - **Low** to **High**

#### Modulus of Elasticity (<1000 MPa)
- **6** to **32**
  - **Low** to **High**

### Resistance Properties

#### Resistance to Fungi
- **Not durable** to **Very durable**

#### Resistance to Dry Wood Insects Borer
- **Susceptible** to **Durable**

#### Resistance to Termites
- **Susceptible** to **Durable**

#### Treatability
- **Not permeable** to **Easily permeable**

#### Stability
- **Poorly stable** to **Stable**

#### Fibers Saturation Point
- **15%** to **45%**
  - **Low** to **High**