**Family:** DIPTEROCARPACEAE (angiosperm)

**Scientific name(s):** Shorea almon

**Commercial restriction:** no commercial restriction

Note: ALMON comes from Philippines; it can be sold also under the name of WHITE LAUAN or LIGHT RED LAUAN according to its colour.

### WOOD DESCRIPTION

- **Color:** pinkish white
- **Sapwood:** not clearly demarcated
- **Texture:** medium
- **Grain:** interlocked
- **Interlocked grain:** slight

Note: Brittleheart. Presence of black holes. Pink wood more or less dark. Ribbon like aspect on quartersawn. Presence of white streaks (resin canals).

### LOG DESCRIPTION

- **Diameter:** from 70 to 150 cm
- **Thickness of sapwood:** from 5 to 7 cm
- **Floats:** yes
- **Log durability:** moderate (treatment recommended)

### 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>Mean</th>
<th>Std dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity <em>:</em></td>
<td>0,60</td>
<td></td>
<td>Crushing strength <em>:</em></td>
<td>45 MPa</td>
</tr>
<tr>
<td>Monnin hardness <em>:</em></td>
<td>2.5</td>
<td></td>
<td>Static bending strength <em>:</em></td>
<td>83 MPa</td>
</tr>
<tr>
<td>Coeff. of volumetric shrinkage</td>
<td>0.47 %</td>
<td></td>
<td>Modulus of elasticity <em>:</em></td>
<td>10460 MPa</td>
</tr>
<tr>
<td>Total tangential shrinkage (TS)</td>
<td>7,2 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total radial shrinkage (RS)</td>
<td>3,5 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS/RS ratio</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber saturation point</td>
<td>27 %</td>
<td></td>
<td>Musical quality factor:</td>
<td>110,8 measured at 2689 Hz</td>
</tr>
</tbody>
</table>

**Stability:** stable

### MECHANICAL AND ACOUSTIC PROPERTIES

- **Crushing strength:** 45 MPa
- **Static bending strength:** 83 MPa
- **Modulus of elasticity:** 10460 MPa

### 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 3-4 - moderately to poorly durable
  - Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)
- **Termites (according to E.N. standards):** class 5 - susceptible
- **Treatability (according to E.N. standards):** class 2 - moderately 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: 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

<table>
<thead>
<tr>
<th>Drying rate:</th>
<th>rapid to normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of distortion:</td>
<td>no risk or very slight risk</td>
</tr>
<tr>
<td>Risk of casehardening:</td>
<td>no</td>
</tr>
<tr>
<td>Risk of checking:</td>
<td>no risk or very slight risk</td>
</tr>
<tr>
<td>Risk of collapse:</td>
<td>no</td>
</tr>
<tr>
<td>Note:</td>
<td>Said to be the easiest to dry among all the LAUAN species.</td>
</tr>
</tbody>
</table>

Possible drying schedule: 3

<table>
<thead>
<tr>
<th>M.C. (%)</th>
<th>Temperature (°C) dry-bulb</th>
<th>Temperature (°C) wet-bulb</th>
<th>Air humidity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>60</td>
<td>56</td>
<td>81</td>
</tr>
<tr>
<td>30</td>
<td>68</td>
<td>58</td>
<td>61</td>
</tr>
<tr>
<td>20</td>
<td>74</td>
<td>60</td>
<td>51</td>
</tr>
<tr>
<td>15</td>
<td>80</td>
<td>61</td>
<td>41</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: nood

ASSEMBLING

- Nailing / screwing: poor
- Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to MGR grading rules (2009)

Possible grading: Prime, Select, Standard, Serviceable, Utility

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

- Interior joinery
- Veneer for interior of plywood
- Current furniture or furniture components
- Exterior joinery
- Pulp
- Sliced veneer

- Interior panelling
- Veneer for back or face of plywood
- Cigar boxes
- Exterior panelling
- Fiber or particle boards
- Light carpentry
### 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>Philippines</td>
<td>ALMON</td>
<td>Philippines</td>
<td>WHITE LAUAN</td>
</tr>
</tbody>
</table>