

### **OLMEC SELECT™**

Family. Combretaceae

Botanical Name(s).

Terminalia buceras Bucida buceras (synonymous)

Continent. Latin America

CITES.

This species is not listed in the CITES Appendices (Washington Convention 2023).

# **Description of logs**

Diameter. From 40 to 80 cm

Thickness of sapwood. From 2 to 4 cm

Floats. No

Log durability. Good

# **Description of wood**

Colour reference. Dark brown Sapwood. Clearly demarcated

Texture. Medium

Grain. Straight, slightly interlocked

Interlocked grain. Slight

Notes. Heartwood of a variable color, depending on the tree, from brown or greenish grey to brown to dark olive, generally different from the light brown greenish to greyish sapwood. Growth rings not visible.

# **Physics and mechanics**

The properties indicated are for mature wood. These properties may vary significantly depending on the origin and growing conditions of the wood.

| Property                             | Average value |
|--------------------------------------|---------------|
| Specific gravity <sup>1</sup>        | 0.94          |
| Monnin hardness <sup>1</sup>         | 6.5           |
| Coefficient of volumetric shrinkage  | 0.66 % per %  |
| Total tangential shrinkage (St)      | 8.9 %         |
| Total radial shrinkage (Sr)          | 6.0 %         |
| Ratio St/Sr                          | 1.5 %         |
| Fibre saturation point               | 21            |
| Thermal conductivity (λ)             | 0.30 W/(m.K)  |
| Lower heating value                  |               |
| Crushing strength <sup>1</sup>       | 75 MPa        |
| Static bending strength <sup>1</sup> | 148 MPa       |
| Modulus of elasticity <sup>1</sup>   | 15,300 MPa    |

<sup>&</sup>lt;sup>1</sup> At 12 % moisture content, with 1 MPa = 1 N/mm



Flat sawn





#### Natural durability and preservation

Resistance to fungi. Class 1 - very durable

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class D - durable

Treatability. Class 4 - not permeable

Use class ensured by natural durability.

Class 4 - in ground or fresh water contact

Notes. According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

### Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Does not require any preservative treatment

### **Drying**

Drying rate. Slow

Risk of distorsion. High risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Suggested drying program.

| Phases       | Duration<br>(H) | MC (%)<br>probes | T (°C) | Rh (%) | UGL (%) |
|--------------|-----------------|------------------|--------|--------|---------|
| Prewarm 1    |                 | > 50             | 40     | 86     | 17.0    |
| Prewarm 2    | 4               | > 50             | 43     | 85     | 16.5    |
| Drying       |                 | > 50             | 45     | 83     | 15.7    |
|              |                 | 50 - 40          | 45     | 80.0   | 14.6    |
|              |                 | 40 - 35          | 45     | 77.0   | 13.8    |
|              |                 | 35 - 30          | 45     | 74.0   | 12.9    |
|              |                 | 30 - 27          | 47     | 69.0   | 11.5    |
|              |                 | 27 - 24          | 49     | 61.0   | 9.9     |
|              |                 | 24 - 21          | 50     | 52.0   | 8.4     |
|              |                 | 21 - 18          | 53     | 48.0   | 7.7     |
|              |                 | 18 - 15          | 56     | 41.0   | 6.6     |
|              |                 | 15 - 12          | 59     | 36.0   | 5.9     |
|              |                 | 12 - 9           | 61     | 30.0   | 5.0     |
|              |                 | 9 - 6            | 65     | 29.0   | 4.7     |
| Conditioning | 8               |                  | 58     | (3)    | (2)     |
| Cooling      | (1)             |                  | Arrêt  | (3)    | (2)     |

<sup>(1)</sup> ) Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

<sup>(2)</sup>  $UGL = final H\% \times 0.8 to 0.9$ .

<sup>(3)</sup> Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.





# Sawing and machining

Blunting effect. Fairly high

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Not recommended or without interest

Slicing. Good

### **Assembling**

Nailing and screwing. Good but pre-boring necessary

### **Commercial grading**

#### Appearance grading for sawn timbers.

According to the ATIBT grading rules (2017), the main choices are: FAS (First And Second), n°1 Common and select, n°2 Common (see details of these rules on the ATIBT website).

Visual grading for structural applications

No visual grading for structure

### Fire safety

#### Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)

Thickness < 14 mm: M4 (easily inflammable)

#### Euroclasses grading. D-s2, d0

Default grading for solid wood, according to requirements of European standard EN 14081-1+A1 (August 2019).

It concerns structural graded timber in vertical uses and ceiling with mean density upper 0.35 and thickness upper 22 mm.

#### **End-uses**

- Bridges (parts not in contact with water or ground)
- Cabinetwork (high class furniture)
- Decking
- Exterior joinery
- Heavy carpentry
- Hydraulic works (fresh water)
- Industrial or heavy flooring
- Poles
- Ship building
- Ship building (planking and deck)
- Sleepers
- Sliced veneer
- Tool handles (resilient woods)
- Turned goods
- Wood-ware









Decking Modular Decking







Flooring