| | |
|---|---|
| Common name: | ALEP |
| Family: | IRVINGIACEAE |
| Scientific name(s): | Desbordesia glaucescens |

## LOG DESCRIPTION

| | |
|---|---|
| Diameter: | from 90 to 100 cm |
| Thickness of sapwood: | from 5 to 8 cm |
| Floats: | no |
| Durability in forest : | No information available |
| Note: | Logs must be sawn quickly after felling (cracks during drying). Wood turns to dark brown with air. Dark veins more or less numerous. |

## WOOD DESCRIPTION

| | |
|---|---|
| Colour: | Yellow brown |
| Sapwood: | Clearly demarcated |
| Texture: | Fine |
| Grain: | Straight |
| Interlocked grain: | Absent |

## PHYSICAL PROPERTIES

## MECHANICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

| | mean | standard deviation |
|---|---|---|
| Density *: | 1.05 g/cm3 | 0.05 |
| Monnin hardness*: | 10.9 | 0.8 |
| Coef of volumetric shrinkage: | 0.67 % | 0.15 |
| Total tangential shrinkage: | 10.9 % | 0.6 |
| Total radial shrinkage: | 6.8 % | 0.4 |
| Fibre saturation point: | 28 % | |
| Stability: | Poorly stable | |

| | mean | standard deviation |
|---|---|---|
| Crushing strength *: | 80 MPa | 15 |
| Static bending strength *: | 157 MPa | 13 |
| Modulus of elasticity *: | 23390 MPa | 3350 |

( * : at 12 % moisture content ; 1 MPa = 1 N/mm2 )

## 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.

| | |
|---|---|
| Fungi: | Class 1 - very durable |
| Dry wood borers: | Durable; sapwood demarcated (risk limited to sapwood) |
| Termites: | Class D - Durable |
| Treatability: | 3 - poorly permeable |
| Use class*: | 4 - in ground or fresh water contact |
| Note: | This species naturally covers the use class 5 (end-uses in marine environment or in brackish water) due to its high specific gravity and its hardness. According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition. |

* ensured by natural durability (according EN standards).

## MAIN LOCAL NAMES

| Countries | Local names |
|---|---|
| Cameroon | OMANG |
| Congo | BENGA |
| Dem Rep of Congo | BENGA |
| Gabon | ALEP |

## REQUIREMENT OF A PRESERVATIVE TREATMENT

| | |
|---|---|
| Against dry wood borer attacks: | Does not require any preservative treatment |
| In case of temporary humidification risk: | Does not require any preservative treatment |
| In case of permanent humidification risk: | 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

| M.C. (%) | Temperature (°C) dry-bulb | wet-bulb | Air humidity (%) |
|---|---|---|---|
| Green | 40 | 37 | 82 |
| 40 | 44 | 38 | 68 |
| 30 | 44 | 36 | 59 |
| 20 | 46 | 36 | 52 |
| 15 | 49 | 37 | 46 |

This schedule is given for information only and is applicable to thickness < 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: | Not recommended or without interest |
| 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). |

## END-USES

Main known end-uses; they must to be implemented according to the code of practice.
Important remark: some end-uses are mentionned for information (traditional, regional or ancient end-uses).

Heavy carpentry
Sleepers
Posts
Bridges (parts in contact with water or ground)
Vehicle or container flooring
Hydraulic works (fresh water)
Bridges (parts not in contact with water or ground)