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|---------------------|-------------------|
| Common name: | ANGELIM |
| Family: | FABACEAE |
| Scientific name(s): | Hymenolobium spp. |

| LOG DESCRIPTION | | WOOD DESCRIPTION | |
|------------------------|--|------------------|------------------------|
| Diameter: | from 70 to 120 cm | Colour: | Orange - yellow |
| Thickness of sapwood: | from 3 to 5 cm | Sapwood: | Not clearly demarcated |
| Floats: | no | Texture: | Coarse |
| Durability in forest : | Moderate (treatment recommended) | Grain: | Interlocked |
| Note: | Heartwood yellow brown becoming pinkish brown on exposure. Fairly important waxen patches more or less frequent. | | |

| 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 | | mean | standard deviation |
| Density *: | 0.80 g/cm ³ | 0.07 | Crushing strength *: | 67 MPa | 7 |
| Monnin hardness*: | 6.3 | 1.7 | Static bending strength *: | 119 MPa | 15 |
| Coef of volumetric shrinkage: | 0.67 % | 0.09 | Modulus of elasticity *: | 20870 MPa | 3828 |
| Total tangential shrinkage: | 8.3 % | 1.5 | | | |
| Total radial shrinkage: | 4.9 % | 0.8 | | | |
| Fibre saturation point: | 25 % | | | | |
| Stability: | Moderately stable to poorly stable (* : at 12 % moisture content ; 1 MPa = 1 N/mm ²) | | | | |

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 3 - moderately durable | * ensured by natural durability (according EN standards). |
| Dry wood borers: | Susceptible; sapwood not or slightly demarcated (risk in all the wood) | |
| Termites: | Class S - Susceptible | |
| Treatability: | 2 - moderately permeable | |
| Biological hazard class*: | 2 - not in ground contact, under cover (dampness possible) | |
| Note: | Resistance to decay moderate to good according to the species. | |

COUNTRIES - LOCAL NAMES

| Countries | Local names |
|-----------------|--------------------|
| Brazil | ANGELIM AMARELO |
| Brazil | ANGELIM ROSA |
| Brazil | MIRARENA |
| Brazil (Amazon) | ANGELIM DA MATA |
| Brazil (Amazon) | ANGELIM PEDRA |
| Brazil (Amazon) | SAPUPIRA AMARELLA |
| French Guiana | SAINT MARTIN GRIS |
| French Guiana | SAINT MARTIN JAUNE |
| Guyana | KORAROBALLI |
| Surinam | MAKKAKABES |
| Surinam | SAANDOE |

ANGELIM

REQUIREMENT OF A PRESERVATIVE TREATMENT

| | |
|---|---|
| Against dry wood borer attacks: | Requires appropriate preservative treatment |
| In case of temporary humidification risk: | Requires appropriate preservative treatment |
| In case of permanent humidification risk: | Use not recommended |

DRYING

Possible drying schedule

| Drying rate: | Rapid to normal | Temperature (°C) | | | Air humidity (%) |
|------------------------|-----------------|------------------|----------|----------|------------------|
| | | M.C. (%) | dry-bulb | wet-bulb | |
| Risk of distortion: | Slight risk | Green | 60 | 56 | 81 |
| Risk of casehardening: | No | 30 | 68 | 58 | 61 |
| Risk of checking: | Slight risk | 20 | 74 | 60 | 51 |
| Risk of collapse: | No | 15 | 80 | 61 | 41 |

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.

Note: A slower drying speed can avoid defects.

SAWING AND MACHINING

| | |
|-----------------------|--|
| Blunting effect: | Normal |
| Sawteeth recommended: | Ordinary or alloy steel |
| Cutting tools: | Ordinary |
| Peeling: | Bad |
| Slicing: | Good |
| Note: | Possible difficulties if the waxen patches are numerous. These patches remain visible after machining. |

ASSEMBLING

| | |
|---------------------|------------------------------------|
| Nailing / Screwing: | Good but pre-boring necessary |
| Gluing: | Correct |
| Note: | Tendency to end checks in nailing. |

END-USES

Main known end-uses; they must to be implemented according to the code of practice.

Important remark: some end-uses are mentioned for information (traditional, regional or ancient end-uses).

Note: A careful sanding must be done to obtain a good finish.

Interior joinery
Interior panelling
Exterior joinery
Exterior panelling
Current furniture or furniture components
Moulding
Stairs (inside)
Heavy carpentry
Industrial or heavy flooring
Flooring
Sliced veneer
