Family: FABACEAE (angiosperm)
Scientific name(s): Platymiscium pinnatum
Platymiscium trinitatis
Platymiscium ulei
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

| Color: red brown | Diameter: from 40 to 60 cm |
| Sapwood: clearly demarcated | Thickness of sapwood: from 5 to 10 cm |
| Texture: medium | Floats: no |
| Grain: straight or interlocked | Log durability: moderate (treatment recommended) |
| Interlocked grain: slight |
| Note: Heartwood presents irregular veins. Grain sometimes wavy. |

LOG DESCRIPTION

| Diameter: from 40 to 60 cm |
| Thickness of sapwood: from 5 to 10 cm |
| | Floats: no |
| Log durability: moderate (treatment recommended) |

PHYSICAL PROPERTIES

| Mean | Std dev. |
| Specific gravity *: 0,79 | 0,10 |
| Monnin hardness *: 7,3 | 1,6 |
| Coeff. of volumetric shrinkage: 0,50 % |
| Total tangential shrinkage (TS): 4,9 % | 1,0 % |
| Total radial shrinkage (RS): 2,9 % | 0,6 % |
| TS/RS ratio: 1,7 |
| Fiber saturation point: 18 % |

MECHANICAL AND ACOUSTIC PROPERTIES

| Mean | Std dev. |
| Crushing strength *: 58 MPa | 6 MPa |
| Static bending strength *: 125 MPa | 12 MPa |
| Modulus of elasticity *: 20490 MPa | 1250 MPa |
| (*) at 12% moisture content, with 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.

E.N. = Euro Norm

Fungi (according to E.N. standards): class 2 - 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): no information available
Use class ensured by natural durability: class 3 - not in ground contact, outside
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: use not recommended
DRYING

Drying rate: normal to slow
Risk of distortion: slight risk
Risk of casehardening: no
Risk of checking: slight risk
Risk of collapse: no

Possible drying schedule: 6

<table>
<thead>
<tr>
<th>M.C. (%)</th>
<th>Temperature (°C)</th>
<th>Air humidity (%)</th>
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</thead>
<tbody>
<tr>
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<td>wet-bulb</td>
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<tr>
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</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: no information available
Slicing: good

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)
Possible grading: FAS, Select, Common 1, Common 2, Common 4
In French Guiana, the local name of this species is "EBENE ROUGE". Grading is done according to local rules
"Bois guyanais classés".
Possible grading: Choix 1, choix 2, choix 3, choix 4

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

Current furniture or furniture components
Flooring
Interior joinery
Moulding
Exterior joinery
Musical instruments
Seats
Bridges (parts not in contact with water or ground)

Sliced veneer
Interior panelling
Cabinetwork (high class furniture)
Stairs (inside)
Exterior panelling
Turned goods
Sculpture

Note: Due to a low yield and high price, MACACAUBA is kept for first class end-uses, especially P. ulei.
## MAIN LOCAL NAMES

<table>
<thead>
<tr>
<th>Country</th>
<th>Local name</th>
<th>Country</th>
<th>Local name</th>
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<tbody>
<tr>
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<td>Brazil</td>
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<tr>
<td>United States of America</td>
<td>MACAWOOD</td>
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</tr>
</tbody>
</table>
### Specific gravity

- **Very light**: 0.2
- **Light**: 0.3
- **Medium**: 0.4
- **Heavy**: 0.5
- **Very heavy**: 0.6

### Monnin hardness

- **Very soft**: 1
- **Soft**: 2
- **Medium**: 3
- **Hard**: 4
- **Very hard**: 5

### Coefficient of volumetric shrinkage (%)

- **Low**: 0.3
- **Medium**: 0.4
- **High**: 0.5

### Total tangential shrinkage (%)

- **Low**: 6
- **Medium**: 7
- **High**: 8

### Total radial shrinkage (%)

- **Low**: 2
- **Medium**: 4
- **High**: 6

### Crushing strength (MPa)

- **Low**: 10
- **Medium**: 20
- **High**: 30

### Static bending strength (MPa)

- **Low**: 25
- **Medium**: 50
- **High**: 75

### Modulus of elasticity (<1000 MPa)

- **Low**: 6
- **Medium**: 8
- **High**: 12

### Resistance to fungi

- **Not durable**
- **Poorly durable**
- **Moderately durable**
- **Durable**
- **Very durable**

### Resistance to dry wood insects borers

- **Susceptible**
- **Durable**

### Resistance to termites

- **Susceptible**
- **Moderately durable**
- **Durable**

### Treatability

- **Not permeable**
- **Poorly permeable**
- **Moderately permeable**
- **Easily permeable**

### Stability

- **Poorly stable**
- **Moderately stable**
- **Stable**

### Fibers Saturation Point

- **18%**
- **15%**
- **25%**
- **35%**
- **45%**