

|                     |                         |
|---------------------|-------------------------|
| Common name:        | AIELE                   |
| Family:             | BURSERACEAE             |
| Scientific name(s): | Canarium schweinfurthii |

| LOG DESCRIPTION        |   | WOOD DESCRIPTION   |                |
|------------------------|---|--------------------|----------------|
| Diameter:              | from 80 to 120 cm   | Colour:            | Pinkish brown  |
| Thickness of sapwood:  | from 5 to 10 cm   | Sapwood:           | Not demarcated |
| Floats:                | yes   | Texture:           | Coarse         |
| Durability in forest : | Low (must be treated)   | Grain:             | Interlocked    |
|                        |   | Interlocked grain: | Marked         |
| Note:                  | Light brown slightly pinkish. Possible presence of wind shakes. |                    |                |

| 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 *:   | 0.49 g/cm <sup>3</sup> | 0.09               |   |           |                    |
| Monnin hardness*:  | 1.3                    | 0.5                | Crushing strength *:  | 36 MPa    | 4                  |
| Coef of volumetric shrinkage:  | 0.42 %                 | 0.13               | Static bending strength *:                                    | 59 MPa    | 9                  |
| Total tangential shrinkage:  | 9.9 %                  | 1.1                | Modulus of elasticity *:                                      | 10490 MPa | 1800               |
| Total radial shrinkage:  | 5.9 %                  | 1.1                |   |           |                    |
| Fibre saturation point:  | 40 %                   |                    |   |           |                    |
| Stability:   | Poorly stable          |                    | (* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> ) |           |                    |

#### 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 5 - not 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:             | 4 - not permeable  |   |
| Biological hazard class*: | 1 - not in ground contact, under cover (no dampness)                                 |   |
| Note:                     | This species is listed in the European standard NF EN 350-2.<br>Prone to blue stain. |   |

#### COUNTRIES - LOCAL NAMES

| Countries         | Local names |
|-------------------|-------------|
| Angola            | M'BILI      |
| Cameroon          | ABEL        |
| Congo             | M'BILI      |
| Côte d'Ivoire     | AIELE       |
| Dem Rep of Congo  | BIDIKALA    |
| Dem Rep of Congo  | M'BIDIKALA  |
| Equatorial Guinea | ABE         |
| Gabon             | ABEUL       |
| Gabon             | OVILI       |
| Ghana             | BEDIWUNUA   |
| Ghana             | EYERE       |
| Nigeria           | ELEMI       |
| Sierra Leone      | BILLI       |
| Uganda            | MWAFU       |
| United Kingdom    | CANARIUM    |

---

---

AIELE

---

**REQUIREMENT OF A PRESERVATIVE TREATMENT**

---

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

---

**DRYING**

Possible drying schedule

|                        |           | Temperature (°C) |          |          | Air humidity (%) |
|------------------------|-----------|------------------|----------|----------|------------------|
|                        |           | M.C. (%)         | dry-bulb | wet-bulb |                  |
| Drying rate:           | Slow      |                  |          |          |                  |
| Risk of distortion:    | High risk |                  |          |          |                  |
| Risk of casehardening: | No        |                  |          |          |                  |
| Risk of checking:      | High risk | Green            | 42       | 41       | 94               |
| Risk of collapse:      | Yes       | 50               | 48       | 43       | 74               |
|                        |           | 30               | 54       | 46       | 63               |
|                        |           | 20               | 60       | 51       | 62               |
|                        |           | 15               | 60       | 51       | 62               |

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: Must be dried slowly and carefully.

---

**SAWING AND MACHINING**

---

Blunting effect: Fairly high  
Sawteeth recommended: Stellite-tipped  
Cutting tools: Tungsten carbide  
Peeling: Good  
Slicing: Good

---

**ASSEMBLING**

---

Nailing / Screwing: Poor  
Gluing: Correct

---

**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: Can be used as substitute for OKOUME (*Aucoumea klaineana*) for plywood.

---

Veneer for interior of plywood  
Blockboard  
Boxes and crates  
Veneer for back or face of plywood  
Formwork  
Current furniture or furniture components  
Interior joinery  
Interior panelling  
Sliced veneer

---