

|                     |                       |
|---------------------|-----------------------|
| Common name:        | SIPO                  |
| Family:             | MELIACEAE             |
| Scientific name(s): | Entandrophragma utile |

| LOG DESCRIPTION        | WOOD DESCRIPTION  |                    |                    |
|------------------------|---|--------------------|--------------------|
| Diameter:              | from 60 to 120 cm   | Colour:            | Red brown          |
| Thickness of sapwood:  | from 2 to 6 cm  | Sapwood:           | Clearly demarcated |
| Floats:                | yes   | Texture:           | Medium             |
| Durability in forest : | Moderate (treatment recommended)  | Grain:             | Interlocked        |
| Note:                  | Some logs are not floatable.  | Interlocked grain: | Slight             |
|                        | Wood pinkish brown to red brown slightly purplish, with moiré shades. Ribbon like aspect on quartersawn. Irregular grain. |                    |                    |

| 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 *:   | 0.62 g/cm <sup>3</sup>                    | 0.04               | Crushing strength *:  | 56 MPa    | 6                  |
| Monnin hardness*:  | 3.0                                       | 0.4                | Static bending strength *:                                    | 91 MPa    | 11                 |
| Coef of volumetric shrinkage:  | 0.42 %                                    | 0.06               | Modulus of elasticity *:                                      | 13240 MPa | 2547               |
| Total tangential shrinkage:  | 6.4 %                                     | 0.7                |   |           |                    |
| Total radial shrinkage:  | 4.6 %                                     | 0.7                |   |           |                    |
| Fibre saturation point:  | 30 %                                      |                    |   |           |                    |
| Stability:   | Moderately stable to stable               |                    | (* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> ) |           |                    |
| Note:  | Hardness varies from soft to fairly hard. |                    |   |           |                    |

**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 2-3 durable to moderately durable                      | * ensured by natural durability (according EN standards). |
| Dry wood borers: | Durable; sapwood demarcated (risk limited to sapwood)        |   |
| Termites:        | Class M - Moderately durable                                 |   |
| Treatability:    | 4 - not permeable  |   |
| Use class*:      | 2 - inside or under cover (dampness possible)                |   |
| Note:            | This species is listed in the European standard NF EN 350-2. |   |

| MAIN LOCAL NAMES  |               |
|-------------------|---------------|
| Countries         | Local names   |
| Angola            | KALUNGI       |
| Cameroon          | ASSENG-ASSIE  |
| Côte d'Ivoire     | SIPO          |
| Dem Rep of Congo  | KALUNGI       |
| Dem Rep of Congo  | LIBOYO        |
| Equatorial Guinea | ABEBAY        |
| Gabon             | ASSI          |
| Ghana             | UTILE         |
| Nigeria           | UTILE         |
| Uganda            | MUFUMBI       |
| Germany           | SIPO-MAHOGANY |
| United Kingdom    | UTILE         |

**REQUIREMENT OF A PRESERVATIVE TREATMENT**

|   |   |
|---|---|
| Against dry wood borer attacks:           | Does not require any 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

|                        | Normal      | Temperature (°C) |          | Air humidity (%) |          |
|------------------------|-------------|------------------|----------|------------------|----------|
|                        |             | M.C. (%)         | dry-bulb |                  | wet-bulb |
| Drying rate:           | Normal      |                  |          |                  |          |
| Risk of distortion:    | Slight risk |                  |          |                  |          |
| Risk of casehardening: | No          |                  |          |                  |          |
| Risk of checking:      | Slight risk |                  |          |                  |          |
| Risk of collapse:      | No          |                  |          |                  |          |
|                        |             | Green            | 50       | 47               | 84       |
|                        |             | 40               | 50       | 45               | 75       |
|                        |             | 30               | 55       | 47               | 67       |
|                        |             | 20               | 70       | 55               | 47       |
|                        |             | 15               | 75       | 58               | 44       |

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: The risks of distortion increase in presence of highly interlocked grain especially during kiln drying. Original shakes tend to extend.

**SAWING AND MACHINING**

|                       |   |
|-----------------------|---|
| Blunting effect:      | Normal  |
| Sawteeth recommended: | Ordinary or alloy steel                       |
| Cutting tools:        | Ordinary                                      |
| Peeling:              | Good  |
| Slicing:              | Good  |
| Note:                 | Tendency to tearing due to interlocked grain. |

**ASSEMBLING**

|                     |  |
|---------------------|--|
| Nailing / Screwing: | Good                                     |
| Gluing:             | Correct                                  |
| Note:               | Gluing requires care: it can stain 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).

Note: Filling is recommended in order to obtain a better finish.

Sliced veneer

Current furniture or furniture components

Cabinetwork (high class furniture)

Exterior joinery

Interior joinery

Interior panelling

Veneer for back or face of plywood

Moulding

Open boats

Flooring

Stairs (inside)

Rolling shutters

Light carpentry

Glued laminated