

SIPO, UTILE

| | |
|-------------------------------------|---|
| Botanical name: | <i>Entandrophragma utile</i> , Syn.: <i>E. macrocarpa</i> , family: MELIACEAE |
| Distribution: | Tropical Africa |
| Other important trade names: | Sipo (D, CI, F), assié (F, CAM), utile (D, GH, GB), bada, mébrou, zuri (CI), assi, ombolobolo, mouragalamando, kos-kosi (G), efou-konkonti (GH) |

Abbreviation as per DIN EN 13556: ENUT

Colour and structure of the wood:

Heartwood brown and red, no colour stripes. Clear colour contrast between sapwood and heartwood, medium width. Sap light pinkish grey, heartwood initially pinkish brown to reddish brown, after drying often darkens to violet brown. Growth zone boundaries marked with narrow marginal parenchyma bands usually visible to the naked eye. Cross grain present (causing a clear glossy stripe).

Properties:

| | | |
|---|----------------|--------------|
| Weight fresh [kg/m ³] | | 750 – 850 |
| Bulk density air-dry (12-15 % u) [g/cm ³] | | 0.56 – 0.67 |
| Compression strength u ₁₂₋₁₅ [N/mm ²] | | 51 – 60 |
| Bending strength u ₁₂₋₁₅ [N/mm ²] | | 90 – 104 |
| Modulus of elasticity (bending) u ₁₂₋₁₅ [N/mm ²] | | 8800 – 11800 |
| Toughness [kJ/m ²] | | 30 – 50 |
| Hardness (BRINELL) ⊥ to the grain u ₁₂₋₁₅ [N/mm ²] | | 15 – 21 |
| Drying shrinkage (fresh up to u ₁₂₋₁₅) | radial [%] | 3.0 |
| | tangential [%] | 3.5 |
| Differential shrinkage [%/%] | radial | 0.18 – 0.22 |
| | tangential | 0.23 – 0.26 |
| pH value (suspension) | | 4.5 |
| pH value (surface) | | 4.7 |
| Durability class (EN 350:2016) | | DC 2 – 3 |

Workability:

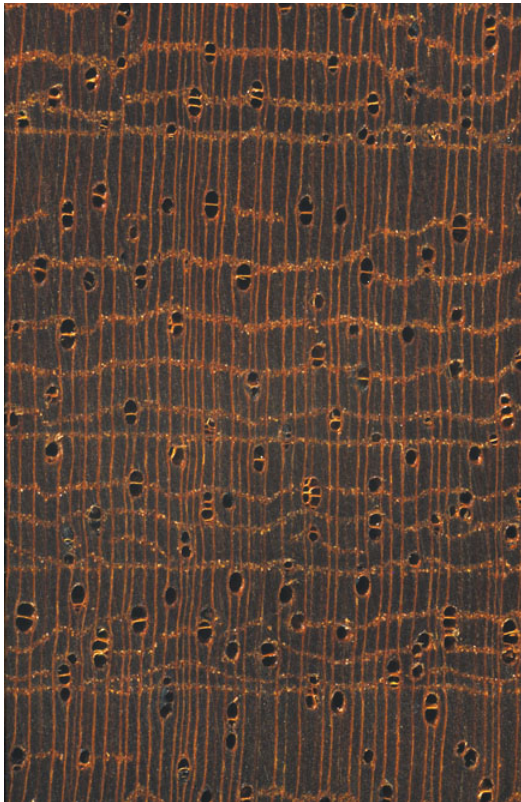
Sipo with straight grain qualities in any form can be machined excellently, like Sapelli. When stemming, planing, and cutting across the grain the tendency to tear out and chip fibres only exists with strong cross grain. Nails and screws hold well, heavier qualities should be pre-drilled. Bonding good.

Drying:

Drying should be a gentle process because cracks can enlarge, and wood is prone to deforming. Generally, this tendency is less pronounced with stronger dimensions than with weak woods.

Use:

Outdoor or indoor use. Especially suitable for: Outdoor construction with no ground contact (balconies, terraces), decorative veneer, rotary cut veneer (for plywood), frame structure (windows, house doors, conservatories), floors (parquet, boards, etc.), stairs, wall and ceiling coverings (internal), furniture.



Macroscopic cross-section of Sipo
(10 times magnification lens)



Wood surface of Sipo (radial section)

WE MAKE THE WORLD LAST LONGER

Surface treatment:

Sipo can be treated easily with all the usual means both for indoor and outdoor applications. With light opaque topcoats water-soluble substances lead to discolouring. Discolouring possible in contact with iron ions (iron/tannin reaction).

Coating systems:

The coating systems illustrated here are examples developed to ensure utmost durability and lasting quality.

Alternative systems are also available; however, these must be confirmed by Teknos. Please contact your local Teknos representative for further details.

Details on application can be found in the technical data sheets for each product.

Windows, doors, conservatories, and folding shutters:

| System coating | Translucent |
|--------------------|---|
| Wood preservative* | TEKNOL AQUA 1412-01 / TEKNOL AQUA 1410-01 / TEKNOL AQUA 1415-01 |
| Primer | AQUAPRIMER 2900-X2 |
| Intermediate | AQUAFILLER 6500-01 |
| Topcoat | AQUATOP 2600 translucent topcoat |

| System coating | Opaque |
|--------------------|---|
| Wood preservative* | TEKNOL AQUA 1412-01 / TEKNOL AQUA 1410-01 / TEKNOL AQUA 1415-01 |
| Primer | ANTISTAIN AQUA 2901-52 |
| Intermediate | ANTISTAIN AQUA 2901-52 |
| Topcoat | AQUATOP 2600-2X |

| System coating | Colourless |
|--------------------|---|
| Wood preservative* | TEKNOL AQUA 1412-01 / TEKNOL AQUA 1410-01 / TEKNOL AQUA 1415-01 |
| Intermediate | AQUAFILLER 6500-01 |
| Topcoat | AQUATOP 2600-6X |
| Topcoat | AQUATOP 2600-6X |

*The use of biocidal products within EU is only allowed if the product has been authorized according to BPR for the country in question. Use biocides safely. Always read the label and product information before use.

WE MAKE THE WORLD LAST LONGER

Wood is a unique, beautiful, and very versatile material

The features and properties of wood vary greatly and therefore individual attention is required in processing and surface finishing.

With this Teknos wood data sheet we would like to go into detail on the features and range of applications in the coating of important wood species.

The data sheet originated from a collaboration with the Johann Heinrich von Thünen-Institute in Hamburg.

The pH values of wood have been determined as important chemical variables for the first time.

The concentration dependence of extracts such as tannic acids or tannins to the pH value is important.

A good surface coating and targeted selection of system structures shall be safer based on these variables determined by Thünen-Institute and demonstrate wood-related problem solving.

All system structures named in the data sheet are selected according to utmost durability and quality and are considered to be relevant systems. However, a practical test is always necessary.

Due to different application possibilities and stresses of parts to be coated, variations are required.

To select individual systems easily, the Teknos technical department will be happy to assist you.

WE MAKE THE WORLD LAST LONGER