AYOUS

Family: MALVACEAE (angiosperm)
Scientific name(s): Triplochiton scleroxylon
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light yellow
Sapwood: not demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight

LOG DESCRIPTION

Diameter: from 60 to 140 cm
Thickness of sapwood:
Floats: yes
Log durability: low (must be treated)

Note: Black holes, brittleheart, ring shakes and grub holes in some logs.
Yellowish white to light yellow, heartwood sometimes darker. Ribbon like aspect on quartersawn. Grain sometimes irregular.

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	Mean	Std dev.
Specific gravity *:	0,38	0,05
Monnin hardness *:	1,1	0,4
Coeff. of volumetric shrinkage:	0,36 %	0,11 %
Total tangential shrinkage (TS):	5,0 %	0,5 %
Total radial shrinkage (RS):	2,9 %	0,4 %
TS/RS ratio:	1,7	
Fiber saturation point:	29 %	

Stability: moderately stable to stable

MECHANICAL AND ACOUSTIC PROPERTIES

	Mean	Std dev.
Crushing strength *:	30 MPa	4 MPa
Static bending strength *:	52 MPa	9 MPa
Modulus of elasticity *:	7260 MPa	1574 MPa

(*: at 12% moisture content, with 1 MPa = 1 N/mm²)

Musical quality factor: 111,2 measured at 2468 Hz

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

Funghi (according to E.N. standards): class 5 - not durable
Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)
Termites (according to E.N. standards): class S - susceptible
Treatability (according to E.N. standards): class 3 - poorly permeable
Use class ensured by natural durability: class 1 - inside (no dampness)
Species covering the use class 5: No
Note: This species is listed in the European standard NF EN 350-2.
Poorly to moderately permeable to preservative treatment. Prone to blue stain and dote.

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

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DRYING

Drying rate: rapid

Risk of distortion: no risk or very slight risk

Risk of casehardening: no

Risk of checking: no risk or very slight risk

Risk of collapse: no

Note: During air drying, it is recommended to use large spacer sticks to allow a good air circulation.

Possible drying schedule: 3

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	60	56	81
30	68	58	61
20	74	60	51
15	80	61	41

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: good

Slicing: nood

Note: Tends to crumble when machining end grain and tends to tear in mortising (it is recommended to keep sharp edges and to reduce the cutting angle). Filling recommended.

ASSEMBLING

Nailing / screwing: poor

Gluing: correct

Note: Gluing must be done carefully: absorbent wood.

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to SATA grading rules (1996)
For the "General Purpose Market":
Possible grading for square edged timbers: choix I, choix II, choix III, choix IV
Possible grading for short length lumbers: choix I, choix II
Possible grading for short length rafters: choix I, choix II, choix III
For the "Special Market":
Possible grading for strips and small boards (ou battens): choix I, choix II, choix III
Possible grading for rafters: choix I, choix II, choix III

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

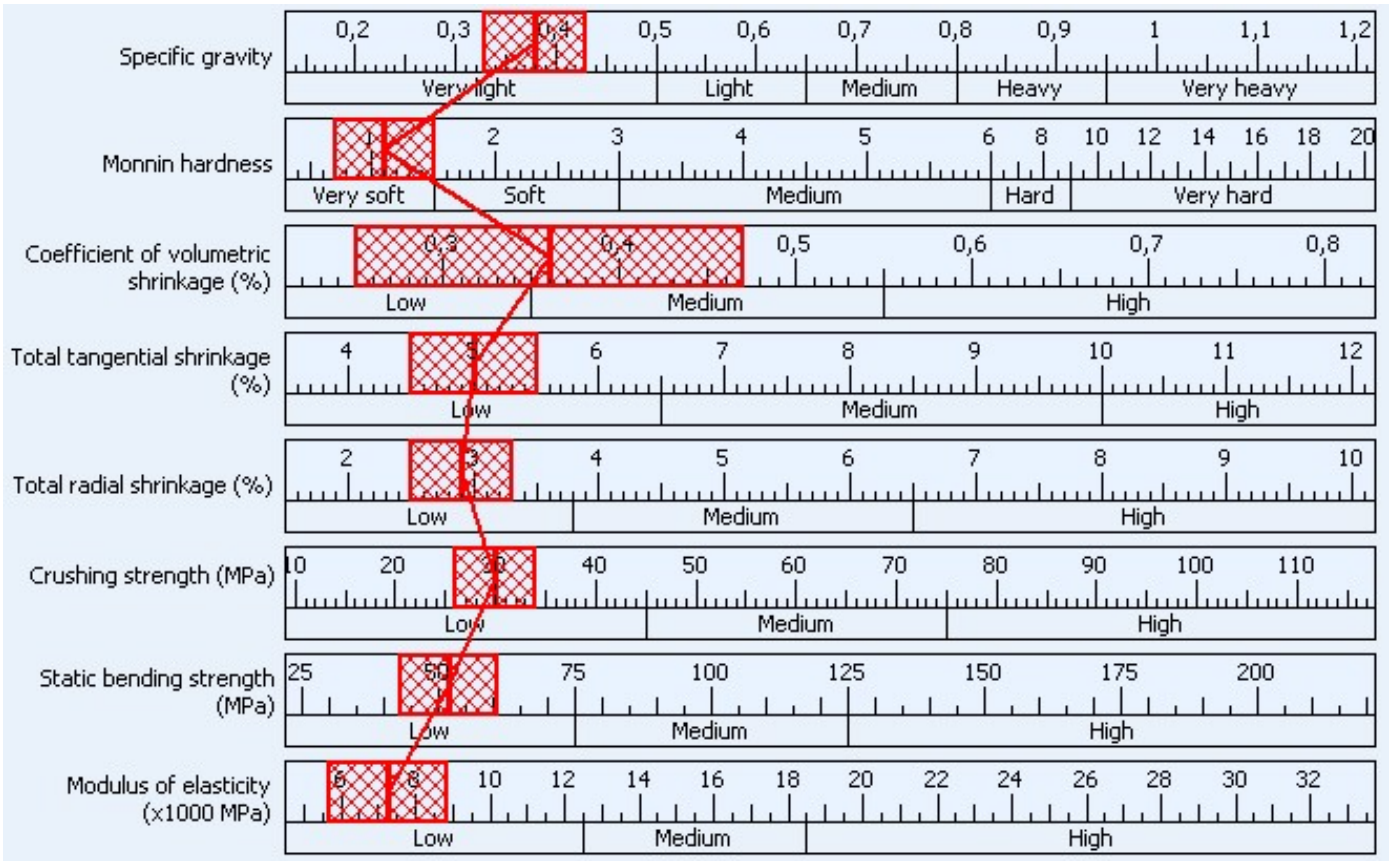
Moulding
Veneer for back or face of plywood
Boxes and crates
Interior panelling
Blockboard
Matches
Pencils
Veneer for interior of plywood
Current furniture or furniture components
Interior joinery
Fiber or particle boards
Sculpture
Sliced veneer

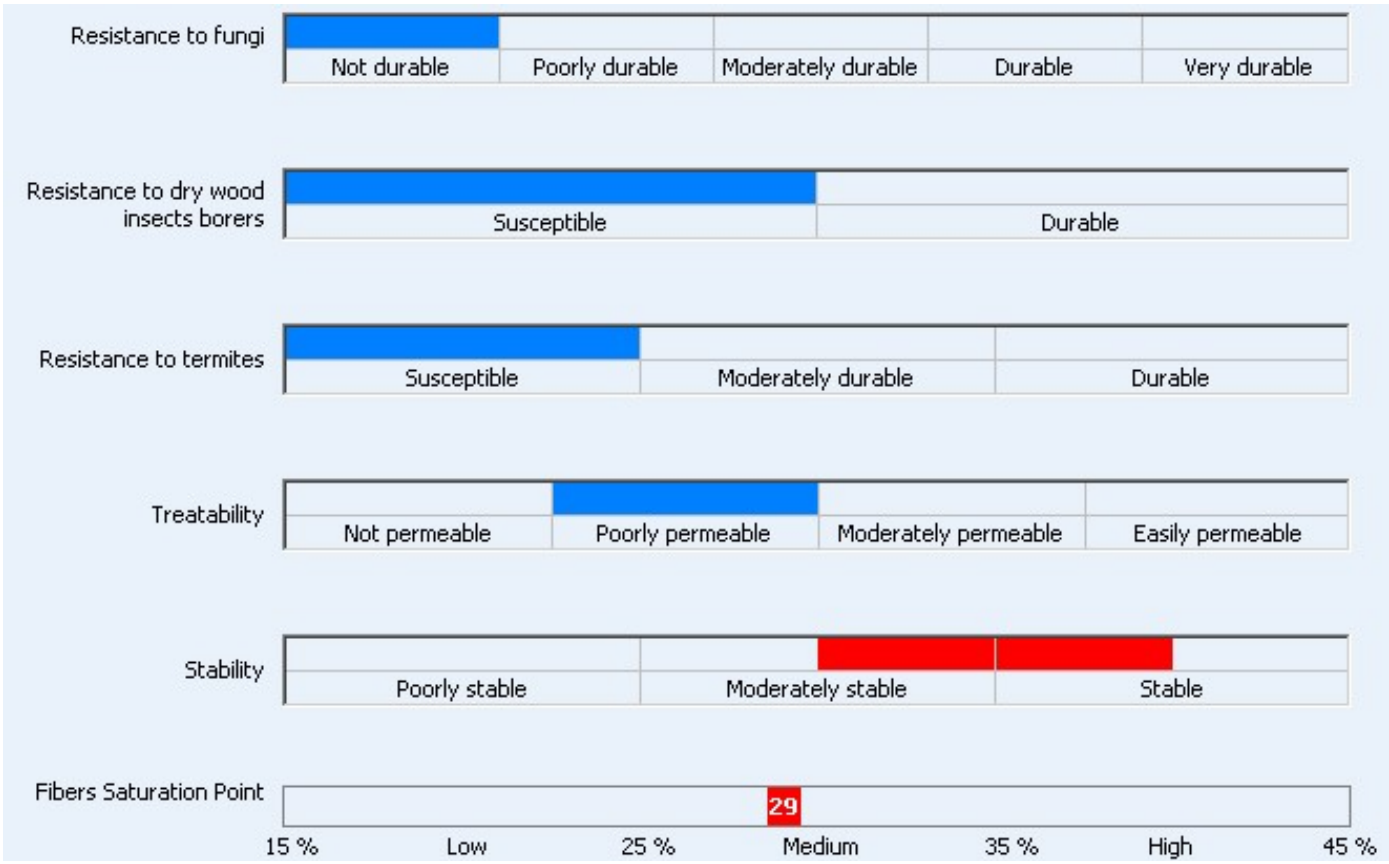
Note: Substitute for POPLAR (Populus spp.) for several end-uses: light furniture, pannelling....

MAIN LOCAL NAMES

Country	Local name
Benin	XWETIN
Cameroon	AYUS
Ivory Coast	SAMBA
Ghana	WAWA
Equatorial Guinea	AYUS
Nigeria	OBECHE
Central African Republic	M'BADO
France	AYOUS
United Kingdom	AYOUS
United Kingdom	WAWA

Country	Local name
Cameroon	AYOUS
Congo	EGUESS
Gabon	AYOUS
Equatorial Guinea	AYOUS
Nigeria	ARERE
Central African Republic	BADO
Germany	ABACHI
France	SAMBA
United Kingdom	OBECHE


Specific gravity
0,2 0,3 0,4 0,5 0,6 0,7 0,8 0,9 1 1,1 1,2
Very light
Light
Medium
Heavy
Very heavy
Monnin hardness
1 2 3 4 5 6 8 10 12 14 16 18 20
Very soft
Soft
Medium
Hard
Very hard
Coefficient of volumetric shrinkage (%)
0,3 0,4 0,5 0,6 0,7 0,8
Low
Medium
High
Total tangential shrinkage (%)
4 6 7 8 9 10 11 12
Low
Medium
High
Total radial shrinkage (%)
2 4 5 6 7 8 9 10
Low
Medium
High
Crushing strength (MPa)
10 20 40 50 60 70 80 90 100 110
Low
Medium
High
Static bending strength (MPa)
25 75 100 125 150 175 200
Low
Medium
High
Modulus of elasticity (x1000 MPa)
6 8 10 12 14 16 18 20 22 24 26 28 30 32
Low
Medium
High


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
29
15 %
Low
25 %
Medium
35 %
High
45 %