

Family: ARAUCARIACEAE (gymnosperm)

Scientific name(s): Agathis dammara

Agathis alba (synonymous)

Agathis lanceolata

Agathis moorei

Agathis obtusa

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light yellow
Sapwood: not clearly demarcated
Texture: fine
Grain: straight
Interlocked grain: absent

LOG DESCRIPTION

Diameter: from 60 to 120 cm
Thickness of sapwood: from 8 to 11 cm
Floats: yes
Log durability: low (must be treated)

Note: Wood cream white or light yellow with often pink reflection, turns golden brown on exposure. Moiré aspect.

PHYSICAL PROPERTIES

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

	<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	0,53	0,06
Monnin hardness *:	2,5	0,5
Coeff. of volumetric shrinkage:	0,41 %	0,07 %
Total tangential shrinkage (TS):	5,9 %	1,4 %
Total radial shrinkage (RS):	4,0 %	1,1 %
TS/RS ratio:	1,5	
Fiber saturation point:	30 %	
Stability: stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	43 MPa	4 MPa
Static bending strength *:	76 MPa	9 MPa
Modulus of elasticity *:	11240 MPa	1707 MPa

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

Musical quality factor: 93,7 measured at 2670 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 3-4 - moderately to poorly 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 2 - moderately 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.

Moderate to good amenability to preservative treatment. Prone to blue stain.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate preservative treatment

In case of risk of temporary humidification: requires appropriate 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

Note: Risk of blue stain.

Possible drying schedule: 4

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

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: good

Note: Planed surfaces are lustrous.

ASSEMBLING

Nailing / screwing: good

Gluings: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to MGR grading rules (2009)

Possible grading: Prime, Select, Standard, Serviceable, Utility

FIRE SAFETY

Conventional French grading: Thickness > 18 mm : M.3 (moderately inflammable)

Thickness < 18 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

Sliced veneer

Interior panelling

Veneer for interior of plywood

Matches

Turned goods

Boxes and crates

Light carpentry

Note: Aspect similar to MERISIER (*Cerasus avium*). Stains well.

Cabinetwork (high class furniture)

Interior joinery

Current furniture or furniture components

Veneer for back or face of plywood

Cooperage

Shingles

Wood-ware

Glued laminated

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Australia	KAURI	Indonesia	AGATHIS
Indonesia	DAMAR BINDANG	Indonesia	DAMAR KAPAS
Indonesia	DAMAR PILAU	Indonesia	DAMAR SIGI
Peninsular Malaysia	BENDANG	Peninsular Malaysia	BINDANG
Peninsular Malaysia	MENGHILAN	Malaysia (islands)	DAMAR MINYAK
Malaysia (islands)	KAURI	New Caledonia	KAORI
Papua New Guinea	KAURI PINE	Philippines	ALMACIGA
Vanuatu	DAMAR MINIAK		

