Common name:	JARRAH
Family:	MYRTACEAE
Scientific name(s):	Eucalyptus marginata
Note:	JARRAH presently commercialized does not come anymore from primary forests; it only comes from regrowth forests (Australia) or plantations (in particular South Africa).

LOG DESCRIPTION

Diameter:	from 60 to 120 cm
Thickness of sapwood:	from 3 to 6 cm
Floats:	no
Durability in forest :	Good
Note:	Narrow sapwood.

WOOD DESCRIPTION

Colour:	Red brown
Sapwood:	Clearly demarcated
Texture:	Medium
Grain:	Straight or interlocked
Interlocked grain:	Slight

Wood red brown to dark brown, sometimes interlocked, wavy or curly.

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
Density *:	0.82 g/cm3	
Monnin hardness*:	9.3	
Coef of volumetric shrinkage:	0.54 %	
Total tangential shrinkage:	10.5 %	
Total radial shrinkage:	6.4 %	
Fibre saturation point:	34 %	

	mean	standard deviation
Crushing strength *:	81 MPa	
Static bending strength *:	101 MPa	
Modulus of elasticity *:	20090 MPa	

Stability: Moderately stable to poorly stable (* : at 12 % moisture content ; 1 MPa = 1 N/mm2)

Note: Physical and mechanical properties of JARRAH hardly vary according to trees age and growth conditions.

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 1 - very durable
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)
Termites:	Class M - Moderately durable
Treatability:	4 - not permeable
Use class*:	4 - in ground or fresh water contact
Note:	This species is listed in the European standard NF EN 350-2. According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition. The resistance to termites varies from "moderately durable" to "durable".

* ensured by natural durability (according EN standards).

MAIN LOCAL NAMES

Countries	Local names
Australia	JARRAH

JARRAH

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Does not require any preservative treatment
In case of permanent humidification risk:	Does not require any preservative treatment

DRYING

Drying rate:	Slow
Risk of distortion:	High risk
Risk of casehardening:	No
Risk of checking:	High risk
Risk of collapse:	Yes

Possible drying schedule

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	40	37	82
40	44	38	68
30	44	36	59
20	46	36	52
15	49	37	46

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: Drying must be done very slowly (surface drying). Dehumidification drying is recommended.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Not recommended or without interest
Note:	Requires power. Difficulties in presence of irregular grain. It is recommended to reduce the cutting angle to 15° to avoid tearing.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
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 mentionned for information (traditional, regional or ancient end-uses).

Hydraulic works (fresh water)
Sleepers
Posts
Bridges (parts in contact with water or ground)
Industrial or heavy flooring
Flooring
Vehicle or container flooring
Heavy carpentry
Glued laminated
Interior panelling
Exterior panelling
Bridges (parts not in contact with water or ground)
Ship building (planking and deck)
Stairs (inside)
Moulding
Cabinetwork (high class furniture)