

Family: PINACEAE (gymnosperm)

Scientific name(s): Cedrus atlantica

Commercial restriction: no commercial restriction

Note: ATLAS CEDAR comes from North Africa and was introduced in France in the middle of the 19th century. It is used for reforestation in whole southern Europe.

WOOD DESCRIPTION

Color: yellow brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight
Interlocked grain: absent

Note: Heartwood yellow brown to reddish brown. ATLAS CEDAR's odour is strong and characteristic. It lasts long. A thin brown silver figure is visible with the naked eye on the quartersawn.

LOG DESCRIPTION

Diameter: from 50 to 80 cm
Thickness of sapwood: from 4 to 10 cm
Floats: pointless
Log durability: good

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 *:	0,51	
Monnin hardness *:	2,4	
Coeff. of volumetric shrinkage:	0,37 %	
Total tangential shrinkage (TS):	6,0 %	
Total radial shrinkage (RS):	4,1 %	
TS/RS ratio:	1,5	
Fiber saturation point:	28 %	
Stability:	stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	42 MPa	
Static bending strength *:	82 MPa	
Modulus of elasticity *:	10100 MPa	

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

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

Fungi (according to E.N. standards): class 1-2 - very durable to durable

Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)

Termites (according to E.N. standards): class M - moderately durable

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 3 - not in ground contact, outside

Species covering the use class 5: No

Note: Use class 3 is only for wood components without sapwood.

According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment

In case of risk of temporary humidification: does not require any preservative treatment

In case of risk of permanent humidification: requires appropriate preservative treatment

DRYING

Drying rate: rapid
 Risk of distortion: high risk
 Risk of casehardening: no
 Risk of checking: no risk or very slight risk
 Risk of collapse: no

Possible drying schedule: 3

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
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: stellite-tipped
 Cutting tools: tungsten carbide
 Peeling: good
 Slicing: good
 Note: Small very hard knots are present. ATLAS CEDAR is easy to turn .

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
 Gluing: correct

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

Sliced veneer	Cabinetwork (high class furniture)
Interior joinery	Heavy carpentry
Exterior joinery	Exterior panelling
Turned goods	Wood frame house
Wood-ware	

Note: This wood is interesting for structures requiring a good durability as well as a low density.

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Germany (temperate timber)	ATLANTISCHE ZEDER	Spain (temperate timber)	CEDRO DEL ATLAS
France (temperate timber)	CEDRE DE L'ATLAS	Italia (temperate timber)	CEDRO DELL' ATLANTE
United Kingdom (temperate timber)	ATLAS CEDAR		

