

#### Natural characteristics of wood

Its wood is tough, heavy, strong, close-grained, and is a light cream color. Its color is pale brown to yellow-gray and is quite similar to the color of Oak wood. It is straight-grained, attractive in texture and color, and it is easily workable as well. The wood is used in the making of railway ties, fences, and as fuel. Chestnut oak wood also has a very high density.



It is quite elastic, dense and hard wood. It has very good water resistance and this is due to the fact that it contains a high concentration of tannins. For the same reason this wood reacts chemically when it comes in contact with iron. It is recommended to use stainless steel screws in constructions.

The chestnut is used in floors, furniture, construction, stairs, barrels, etc. In France this wood is often used as a substitute for beechwood or for floors. The chestnut stands out ideally in its aged form.

### Solid Chestnut Timber



### Physical & mechanical properties

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

	Mean			
Specific gravity *:	0,64	Crushing strer	ngth *:	46 MPa
Monnin hardness *:	2,9	bending strer	ngth *:	71 MPa
Coeff. of volumetric shrinkage:	0,42 %	Modulus of elast	icity *:	13300 MPa
Total tangential shrinkage (TS):	6,9 %			
Total radial shrinkage (RS):	4,2 %			
TS/RS ratio:	1,6			
Fiber saturation point:	30 %		(*:	at 12% moisture content,
Stability:	moderatel	y stable		with 1 MPa = 1 N/mm <sup>2</sup> )

### 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 2 - 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 4 - not permeable

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

Species covering the use class 5: No

Note: This species is listed in the European standard NF EN 350-2.

Durability is linked to the presence of water soluble tanins. It decreases with tanins washing in case of harsh exposition.

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: use not recommended

#### **Applications**





# Laminated Chestnut Timber



#### **Dimensions**

L\W_	80	100	120	140	160	180	200	240	280	300	320	360
h <sub>50</sub>	•	•	•	•	•	•	•	•	•	•	•	•
60	•	•	•	•	•	•	•	•	•	•	•	•
70	•	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•	•
100		•	•	•	•	•	•	•	•	•	•	•
120			•	•	•	•	•	•	•	•	•	•
140				•	•	•	•	•	•	•	•	•
160					•	•	•	•	•	•	•	•
180						•	•	•	•	•	•	•
200							•	•	•	•	•	•
240								•	•	•	•	•
280									•	•	•	•
300										•	•	•

maximum length: 7 m
maximum length: 6 m





pergola made of solid chestnut

#### **Applications**





## Related projects







