

Family: FABACEAE (angiosperm)

Scientific name(s): Robinia pseudoacacia

Commercial restriction: no commercial restriction

Note: Coming from East of USA, ROBINIA was introduced in Europe by Jean ROBIN in the 17th century. ROBINIA is frequently called "Acacia" which is source of mistake. The name "Acacia" must be used only for woods of the "Acacia" genus (tropical species). Some of them, coming from plantations are arriving on the European market today (i.e. ACACIA MANGIUM, cf. corresponding sheet).

WOOD DESCRIPTION

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

Note: Yellow to greenish yellow when freshly cut, heartwood comes darker and rapidly takes a golden brown shade sometimes quite dark.

LOG DESCRIPTION

Diameter: from 15 to 50 cm
Thickness of sapwood:
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 *:	0,74	
Monnin hardness *:	9,5	
Coeff. of volumetric shrinkage:	0,40 %	
Total tangential shrinkage (TS):	6,9 %	
Total radial shrinkage (RS):	4,4 %	
TS/RS ratio:	1,6	
Fiber saturation point:	30 %	

Stability: moderately stable to poorly stable

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	70 MPa	
Static bending strength *:	126 MPa	
Modulus of elasticity *:	16900 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

Funghi (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 D - durable

Treatability (according to E.N. standards): class 4 - not permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

Species covering the use class 5: No

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

It is the only temperate hardwood introduced in Europe which naturally covers the use class 4.

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: 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: no

Possible drying schedule: 6

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	41	94
50	48	43	74
30	54	46	63
20	60	51	62
15	60	51	62

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: ROBINIA wood has a good aptitude for bending.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
 Gluing: correct
 Note: Tends to split.

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

Stakes
 Pit props
 Ship building
 Tool handles (resilient woods)

Hydraulic works (fresh water)
 Exterior panelling
 Sliced veneer
 Wood-ware

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Germany (temperate timber)	FALSCHER AKAZIE	Germany (temperate timber)	ROBINIE
Spain (temperate timber)	ROBINIA	France (temperate timber)	ACACIA
France (temperate timber)	ROBINIER	Italy (temperate timber)	ROBINIA
United Kingdom (temperate timber)	FALSE ACACIA	United Kingdom (temperate timber)	ROBINIA
United States (temperate timber)	BLACK LOCUST		

