



Oak, European

Quercus robur, Quercus petraea, Quercus sessiliflora, Quercus pedunculata
AKA: European oak, English oak, French oak, Slovenian oak, Polish oak

Wood Type -	Hardwood
Environmental -	Believed available from well-managed sources. Certified material available on request.
Introduction -	The genus <i>Quercus</i> with more than two hundred separate species produces the true oaks. Most of these are found in the northern hemisphere.
Distribution -	<i>Q. petraea</i> produces the sessile or durmast oak, while the pedunculate oak is produced by <i>Q. robur</i> : both species occur throughout Europe including the British Isles extending to minor Asia & N Africa.
The Tree -	Both species reach a height of 18m to 30m or a little more depending upon growth conditions which also affect the length of the bole. When drawn up in forests at the expense of their branches, this may be 1.5m or so in length, but in open situations, the tree branches much lower down. Diameters 1.2m to 2m.
The Timber -	There is no essential difference in the appearance of the wood of either species. The sapwood is 25mm to 50mm wide and lighter in colour than the heartwood which is yellowish-brown. The annual rings are clearly marked by alternating zones of early-wood consisting of large pores, and dense late- wood. The weight of oak varies according to type; that from the Baltic area, western Europe, and Great Britain being about 720 kg/m ³ and that from Central Europe about 672 kg/m ³ on average after drying.
Drying -	Oak dries very slowly with a marked tendency to split and check, particularly in the early stages of drying, and there is considerable risk of honeycombing if the drying is forced, especially in thick sizes. End and top protection must be provided to freshly sawn stock exposed to sun and drying winds, and sticker thickness should be reduced to about 12mm for stock piled in the open air during early spring and onwards until winter.
Strength -	Both the sessile and pedunculate oaks have well known and high strength properties, and those hybrid oaks developed from both types and common throughout Europe, are similar in strength.
Working Qualities -	Medium to Difficult.
Durability -	Durable.
Treatability -	Extremely difficult.
Moisture Movement -	Medium.
Abrasions -	Very Good.
Density(mean,Kg/m ³) -	720.
DensityText -	Density can vary by 20% or more.
Texture -	Medium to Coarse.
Availability -	Variable.
Price -	Medium to High.
Chemical Properties -	Iron staining may occur in damp conditions, similarly corrosion of metals.
Use(s) -	Heavy structural use, Cladding, Exterior joinery, Interior joinery, Furniture, Flooring
Colour(s) -	Yellow Brown.