

## Oak (*Quercus spec. div.*)



Growth area: Europe.

Trees: The straight branch free trunk is 15m at maximum and can reach a diameter on average of about 120 cm.

Description: The heartwood has a yellowbrown till darkbrown colour and is clearly distinguishable from the 3 – 5 cm wide lightbrown sapwood. Quarter sawn timber shows a characteristic silver-grained figure. Plain sawn timber shows a growth ring figure.



Texture/figure: Straight grain. Moderately fine to coarse texture.

Smell/Taste: No characteristic smell or taste.

Machining: Is easy to machine. With sharp tools a smooth surface can be realised.

Gluing: Glues well.

Drying: The wood needs to be kiln dried very slowly as it has the tendency to crack, to show deformations, to collapse and to show discolourations when not dried properly.

Fixation: Keeps nails and screws well, pre-drilling is necessary.

Durability: Class II.

Density: Unseasoned: 900 - 1200 kg / m<sup>3</sup>; Moisture content 12%: 700 (500 - 970) kg / m<sup>3</sup>

Shrinkage: Radial: 4,7%; Tangential: 9,6% (till oven-dry, in general less than this)

Bending strength: 95 N/mm<sup>2</sup> (Moisture content 12-15%, measurement till rupture)

Modulus of Elasticity: 9800 N/mm<sup>2</sup> (Moisture content 12-15%)

Applications: Heavy constructions, bridges, marine works, shipbuilding, chemical industry, barrels, furniture, toys, sports articles, windows, doors, flooring, tools.