



European Oak

Atibt

NEN-EN 13556: European oak (GB), chêne blanc Européen (F), Eiche (D), code QCXE

Other names

Belgian, German, French, native, Polish, Romanian, Slavonian, Spessart oaks depending on origin.

Botanic name

1. *Quercus robur* L.
2. *Quercus petraea* (Matt.) Liebl.

Family

Fagaceae.

Growth area

Europe and Asia



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| Tree Description | Height 18-30m, maximum 45m. the straight branch-free trunk is up to 15m long and has a diameter of 1.2-1.8m. the oak tree can reach a high age. |
| Supply | Roundwood, sawnwood, veneer and as various semi-finished and finished products. |
| Wood Description | European oak heartwood has a yellow-brown to dark brown color and stands out clearly against the 25-50mm wide pale brown sapwood. The wood is ring-pored, creating a flame pattern on the bore. |
| Wood Recognition | Wood with typical oak structure. It is indistinguishable from American white oak but can be distinguished from American red oak by the presence of thylls in the earlywood barrels and by its more whitish color. |
| Grain | Straight |
| Texture | Moderately coarse to coarse. |
| Voluminous mass | (500-)710(-970) kg/m ³ at 12% moisture content, fresh 900-1200 kg/m ³ (moisture content about 65%). |
| Shrinkage | Radial 2,5% and tangential 6,3%. |
| Drying | Very slow. |
| Hardness | Longitudinal plane 4200-6300 N. |



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| Machinability | In general, oak is easy to work both mechanically and with hand tools. |
| Nailing & Screwing | Moderate. Pre-drilling is recommended. |
| Adhesives | Good. |
| Bend | Very good. |
| Surface finish | Good. |
| Impregnability | Heartwood 4, sapwood 1 (according to NEN-EN 350). |
| Applications | In exterior applications such as structures, bridge building, residential construction, cladding, tools, ... |
| Strength class | Classified as D18, D24 and D30. |

Sustainability

Relative resistance to mold

Heartwood class 2-4 (1-2) (NEN-EN 350: practical experience and field examination), class 2-3 (NEN-ENV 252: field examination method).

Relative resistance to animal organisms

Heartwood: drywood borers D, anobium D, termites M and marine borers S (NEN-EN 350).