

# White American Oak



Please contact one of our helpful experts for more information **+44(0) 1373 469905**

## What is American White Oak?

**American White Oak Timber** (*Quercus Alba*) is distinct from Western Europe Oak (*Quercus Robur & Petraea*). It is generally produced from a smaller log and is less durable than the European variety. However it is very popular for interior joinery, furniture and kitchens. Thinner boards are price competitive but this may change for boards over 50mm thick. Grade mainly FAS but also #1cmn & btr in 25mm thick is often used by volume furniture producers.

**Latin name** *Quercus* spp, *Quercus alba*.

**Also known as** American white oak (*Q. alba*).

**American White Oak Introduction** The Fagaceae family includes some fifty species of the genus *Quercus*, producing the true oaks of North America, but many of these are so small in size or found in such limited quantities that they are of no commercial importance. Some twenty species are important but since it is difficult to distinguish between the wood of individual species it is common practice to group them either as red or white oak.

White oak group timbers are characterised by the small, late-wood pores fine and numerous, not easily distinguished without a magnifying glass. Large pores of the heartwood filled with tyloses in heartwood.

**Environmental** Not listed in CITES. Available from well-managed sources.

**Distribution** From southern Quebec and Ontario to eastern Minnesota and Iowa, extending eastward to the Atlantic and southward through the lower western slopes of the Allegheny and Appalachian Mountains.



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## American White Oak Properties

**The Tree** The white oaks vary in size and form according to species and soil conditions, some are unsuitable for timber production. But others vary in height from 15m to 30m, well-grown specimens having a clear cylindrical bole of up to 15m with a diameter of about 1.0m.

**The Timber** Although generally resembling European oak, American white oak is more variable in colour, ranging from pale yellow-brown to pale reddish-brown, often with a pinkish tint. The multiseriate rays are generally higher than those of the red oaks producing a more prominent and attractive silver-grain figure on quarter-sawn surfaces. The grain is generally straight, and the texture varies from coarse to medium coarse. As with the red oaks, the quality depends greatly on the conditions of growth; slowly-grown northern white oak usually being lighter in weight and milder, than that from the southern states.

The Appalachian Mountains used to provide beautiful mild white oak greatly esteemed for furniture and cabinet-making, but much of this forest area has been destroyed in recent years due to opencast coal mining activities. Southern white oak is typically fast grown, and with its wide growth-rings is relatively coarse and more suited to constructional use. White oak weighs about 770 kg/m<sup>3</sup> when dried.

**Drying** Like all the true oaks the timber dries slowly, with a tendency to split, check and honeycomb.

**Strength** It compares fairly closely with European oak in general strength, but on the whole, its higher density provides rather higher strength.

**Durability** Moderately durable. Heartwood is resistant to decay and extremely resistant to preservative treatment. Sapwood is moderately resistant to preservative treatment.

**Chemical Properties** Acidic nature, iron staining may occur in damp conditions. May also corrode metals.



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**Physical Properties** Heavy and hard. Medium bending and crushing strength properties, Southern White Oak is heavier and harder.

**Texture** Medium

## Working with American White Oak

**Working Qualities Medium** - Variable in working properties according to rate of growth, slow-grown material being easier to work than fast-grown, but either type can be finished smoothly if care is taken. A reduction of cutting angle to 20° is often helpful in planing. The timber can be glued, stained and polished, and takes nails and screws well (also reacts with iron). Machines well. Can be susceptible to movement in performance.

**Use(s)** Construction, Furniture, Flooring, Architectural Joinery, Exterior Joinery, Mouldings, Doors, Kitchen cabinets, Paneling, Barrel staves.

**Treatability** Extremely difficult.

**Moisture Movement** Medium.

**Density** (mean, Kg/m<sup>3</sup>) 770.

## Buying American White Oak from Timbersource

**Availability** Readily available.

**Colour(s)** White/cream, Yellow brown (pale yellow to mid-brown).

**Widths** 100mm- 225mm, but 250mm & wider premium price bundles may also be stocked.

**Lengths** mainly 2.4m, 3.1m, 3.6m and some 4.2m

