

# Alder

## The Tree

Alder is often found in riparian zones, as the tree prefers moist ground. Because of its water tolerance it can also be used as a pioneer species to colonize boggy land and for stabilizing riverbanks. Its roots fix nitrogen, so it can be used to improve soils. Alder can be identified by its round, dark green leaves and cone-like fruits.

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Typical diameters 0.3-0.6 m

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Height up to 30 m

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Age up to 120 years

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4% of UK broadleaved forest

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Typical yield class 6-7

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European alder *Alnus glutinosa*



Alder

Picture by Stefan.lefnaer, Wikimedia Commons

## The Timber

The wood is lightweight and relatively soft, and has historically been valued as for turning and furniture. Alder wood was sometimes buried in peat to make dark coloured "Scots mahogany". Nowadays the wood is one of the lesser used hardwoods, but is used on a small scale in furniture, internal cladding, musical instruments and plywood. No strength grading options for alder exist.



Alder wood

Picture by Stephen Ondich, Wikimedia Commons

Wood light brown to reddish

Heartwood not demarcated

Uniform appearance with no visible growth rings

Large aggregate rays occur

Pith flecks occur

Fine texture

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Diffuse-porous

Rays narrow, not visible

Large aggregate rays are visible, irregular spacing

## What do we know about home-grown alder?

Strength	Moderate; lower than oak, comparable to poplar and sweet chestnut
Stiffness	
Density (at 12% mc)	450 kg/m <sup>3</sup>
Hardness	Medium-low; comparable to softwoods like larch
Machinability	Easy Good for turning, peeling, gluing
Durability	Not durable

### *Why is this information so vague?*

*Little is known about the properties of home-grown hardwoods. Some research was carried out by Lavers, starting in the 1950s and carrying on until 2002, but a limited number of trees was used in this research. Also, the testing was done on small clear specimens, and data for full-sized specimens with defects is rarely available. Nonetheless, we can use this data to compare between species, between timbers from the UK and Europe (or other countries) and between new data and historic results.*

### References & Further Reading

[The Wood Database](#)

[European Atlas of Forest Tree Species, Alder](#)

[Woodland Trust, Alder](#)

[Cotton, Scottish Furniture Woods](#)

Lavers, 2002, The Strength Properties of Timber