

# Birch

## The Tree

Birch trees are a pioneer species and often colonize non-forested land, and are also often found in places where you would not expect trees to grow, like in gutters and on top of chimneys. The trees are also known for their fast growth, and in fact are the most abundant broadleaf species in the UK, which contributes to their reputations as “weed of the forest”. Birch trees are easily recognisable thanks to their black and white bark that is common in the two main species found in the UK, silver birch and downy birch. They commonly have a slender stem and small, triangular leaves. The tree has many uses: twigs of birch trees have historically been used for making brooms, birch sap can be boiled to a syrup and some fungi grown on birch can be used for medicinal purposes thanks to the wood extractives.

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Typical diameters 0.3-0.6 m, also up to 1 m

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Height up to 30 m

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Age up to 120 years

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18% of UK broadleaved forest

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Typical yield class 4-6

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Silver birch *Betula pendula*

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Downy birch *B. pubescens*



Silver birch

Picture by Abc10, Wikimedia Commons

## The Timber

In the UK, birch wood has a longstanding tradition of being used in furniture, turned goods and joinery. The wood lends well to peeling veneers, and more recently birch plywood is an important product manufactured, for example, in Russia, Lithuania and Scandinavia. It is also used as pulpwood for papermaking. Strength grading options for birch do not exist to date but are under development in Scandinavian countries.



Birch plywood

Picture by Bystander, Wikimedia Commons

Cream white to reddish

Heartwood not demarcated

Uniform appearance with no visible growth rings

Fine texture

Pith flecks common

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Diffuse-porous

Vessels medium-sized, in radial multiples

Rays narrow and barely visible

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

Strength	High compared to other UK hardwoods
Stiffness	
Density (at 12% mc)	620 kg/m <sup>3</sup>
Hardness	Medium, comparable to oak
Machinability	Easy Good for peeling, turning Easy to dry, but prone to distortion
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, Birch](#)

[Forest Research, Growing Birch in Scotland for Higher Quality Timber](#)

[Woodland Trust, Silver birch](#)

Lavers, 2002, The Strength Properties of Timber