

## **American Red Oak**

### **A world favourite for flooring and furniture**

**American Red Oak represents about 35% of the U.S. national hardwood forest resource, a species unique to North America. So almost all hardwood sawmills and exporters in the USA are interested in selling more. This is an interior species that performs very well in furniture, flooring, joinery and doors. It is readily available as solid lumber and veneer, and it stains well so it suits today's trend for darker furniture. Finally, Red Oak is increasingly competitive, especially on today's dollar exchange.**

In the past some furniture makers and interior joinery manufacturers, especially in Asia, have been unfamiliar with this particular Oak, which is one of the most sustainable of all temperate hardwoods. American Red Oak is a true *Quercus*, mainly *Quercus rubra* Northern Red Oak and *Quercus falcata* Southern Red Oak, but there are many others subspecies such as Spanish Oak, Cherrybark Oak and shumard Oak. They all exhibit much the same technical and working properties but, as with most US hardwoods, can vary in colour and grain from growing region to region. The percentage of heartwood in Red Oak is relatively large particularly in northern grown material. As usual, when specifying American hardwoods, it is best to find out your source, whether physical properties or aesthetic and visual looks are more important.

#### **CHARACTERISTICS**

Red Oak is particularly easy to slice and peel for veneer and plywood and as a result is widely used for doors and panelling where its individual character offers decorative options for interiors to designers and architects; and to furniture makers. The tree grows large and tall giving much better specifications than most other types of Oak. The seed of the American Red Oak is quite resistant to fire and often is a pioneer species after others have been destroyed by fires, started by lightning. In Pennsylvania after devastating natural fires in the early 1900s, it was Red Oak that came back to regenerate the forest naturally. Red oak has been cut continuously for widespread use since the European settlers first arrived and yet it increases its growing volume by sound management and natural regeneration – always a true measure of sustainability.

#### **TECHNICAL & WORKING PROPERTIES**

American Red Oak has medium bending properties but very good bending with steam. It has high crushing strength and is mostly straight grained. American Red Oak is generally straight grained and is classified as non-durable although the sapwood is permeable and easily treated with preservative, whereas the heartwood is moderately easy to treat. This fact also enables it to be more easily treated with fire retardant chemicals than some other hardwood species. Other properties lead to the harder wood needing pre-boring for nails, but it machines well and also glues and stains well to a fine finish. The decorative properties of Red Oak are derived from its strong grain patterns and generally warm colour. In performance the hardness of Red Oak makes it ideal for flooring, and with its distinct grain pattern it shows wear and tear less than many other species used today. Major uses are joinery, furniture, flooring, panelling, doors and kitchen cabinets.



**American Red Oak Flooring**  
**Amsterdam School of Music**



**American Red Oak Furniture**  
**Design of 1<sup>st</sup> Indonesian Furniture Design Competition**

	<b>Northern</b>	<b>Southern</b>
<b>Average Weight (12% M.C.):</b>	a) 705 kg/m <sup>3</sup>	b) 753 kg/m <sup>3</sup>
<b>Average Volumetric Shrinkage:</b>	10.8% (Green to 6% M.C.)	
<b>Modulus of Elasticity:</b>	a) 12,549 MPa	b) 15,721 MPa
<b>Hardness:</b>	a) 5,738 N	b) 6,583 N
	a) <i>Quercus rubra</i>	b) <i>Quercus falcata</i>

**Sources**

[www.ahec-seasia.org](http://www.ahec-seasia.org)

[www.nhla.com](http://www.nhla.com)

[www.americanhardwood.org](http://www.americanhardwood.org)

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This article was written by Michael Buckley, hardwood specialist for business to business readers, and is sponsored by the American Hardwood Export Council.

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