

RED OAK

Common Name(s): Red oak

Scientific Name: *Quercus rubra*

Distribution: Northeastern United States and Southeastern Canada

Tree Size: 80-115 ft (25-35 m) tall,
3-6 ft (1-2 m) trunk diameter

Average Dried Weight: 43.8 lbs/ft³ (700 kg/m³)

Specific Gravity (Basic, 12% MC): 0.56, 0.7

Janka Hardness: 1,220 lb_f (5,430 N)

Modulus of Rupture: 14,380 lb_f/in² (99.2 MPa)

Elastic Modulus: 1,761,000 lb_f/in² (12.14 GPa)

Crushing Strength: 6,780 lb_f/in² (46.8 MPa)

Shrinkage: Radial: 4%, Tangential: 8.6%,
Volumetric: 13.7%, T/R Ratio: 2.2

Color/Appearance: Heartwood is a light to medium brown, commonly with a reddish cast. Paler sapwood is not always sharply demarcated from the heartwood. Quartersawn sections display prominent ray fleck patterns. [White oak \(*Quercus alba*\)](#) tends to have a slightly more olive cast (as opposed to red), but color alone isn't always a reliable method of [determining the type of oak](#).

Grain/Texture: Grain is straight, with a coarse, uneven texture. The pores are so large and open that it is said that a person can blow into one end of the wood, and air will come out the other end: provided that the grain runs straight enough.



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