



American Northern White Ash (*Fraxinus Americana*)

Common Name:	Ash
Botanical Name:	<i>Fraxinus americana</i>
Other Common Names:	American ash, Ash, Biltmore ash, Biltmore white ash, Fresno, White ash
Common Uses:	Baseball bats, Baskets, Bent Parts, Cabinetmaking, Chairs, Decorative plywood, Decorative veneer, Food containers, Furniture , Joinery, Paddles, Railroad cars, Tool handles, Bedroom suites, Chests, Concealed parts (Furniture), Desks, Dining-room furniture, Dowell pins, Dowells, Drawer sides, Excelsior, Figured veneer, Fine furniture, Floor lamps, Furniture components, Furniture squares or stock, Handles, Hatracks, Kitchen cabinets, Living-room suites, Office furniture, Plywood, Radio, stereo, TV cabinets, Rustic furniture, Shafts/Handles, Sporting Goods, Stools, Tables , Utility furniture, Veneer, Wardrobes
Region:	North America
Country:	Canada, United States
Distribution:	The North American range of White ash is reported to include New Brunswick, Nova Scotia, Ontario, Prince Edward Island, Quebec, Alabama, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Maine, Michigan, Minnesota, Missouri, Mississippi, North Carolina, Great Smoky Mountain National Park, Iowa, Illinois, Nebraska, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Vermont, Wisconsin, and West Virginia. The tree prefers moist soils of valleys and slopes, particularly deep, well-drained loams. It is usually found growing with many other hardwoods.

Numerical Values for: *Fraxinus americana*

<u>Category</u>	<u>Green</u>	<u>Dry</u>	<u>Unit</u>
Bending Strength	8900	15050	psi
Crushing Strength (Perp.)	765	1340	psi
Max. Crushing Strength	3905	7420	psi

Static Bending (FSPL)	4665	7654	psi
Impact Strength	47	51	inches
Stiffness	1435	1720	1000 psi
Work to Maximum Load	20	20	in-lbs/in ³
Hardness		1320	lbs
Shearing Strength		1910	psi
Specific Gravity	0.56	0.67	
Weight	51	43	lbs/cu.ft.
Radial Shrinkage (G->OD)		5	%
Tangential Shrink. (G->OD)		8	%
Volumetric Shrink. (G->OD)		13	%

Tree & Wood Descriptions for: *Fraxinus americana*

Product Sources	<p>Some material from this species is reported to be available from sustainably managed, salvaged, recycled, or other environmentally responsible sources.</p> <p>Supplies of Ash are reported to be plentiful on the US market. The cost of Ash, which was once moderate, is reported to be steadily rising.</p>
Tree Data	<p>White ash is reported to be the largest and most important of the 18 Ash species that are native to the United States. Trees often attain heights of 70 to 80 feet (21 to 24 m), with trunk diameters of 24 to 36 inches (60 to 90 cm). Boles are reported to be often straight and clear of branches to 30 to 50 feet (9 to 15 m).</p>
Sapwood Color	<p>The narrow sapwood is nearly white in color.</p>
Heartwood Color	<p>The heartwood is pale brown, grayish brown, light brown, or pale yellow streaked with brown. The color may also be cream to very light brown, occasionally with a reddish tinge.</p>
Grain	<p>The grain is described as bold, straight, moderately open with an occasional wavy pattern. Plainsawn boards usually have strong contrast in grain.</p>
Texture	<p>The material is normally coarse-textured.</p>
Luster	<p>The wood is reported to be lustrous.</p>

Odor	Ash is reported to be typically free from taste and odor.
Movement in Service	White ash is reported to have good dimensional stability, and is superior to Red oak in this property.
Natural Durability	<p>The heartwood is reported to have little or no natural resistance to attack by decay causing organisms and insects. The sapwood is also susceptible to attack by powder post beetle and fungi.</p> <p>Resistance to Impregnation The wood is reported to respond well to preservative treatment.</p>
Veneering Qualities	<p>Ash is used to manufacture plywood and some logs are sliced into decorative veneers for paneling and furniture uses.</p> <p>Cutting Resistance There is very little cutting resistance.</p>

Working Properties for: *Fraxinus americana*

Blunting Effect	There is moderate blunting effect on cutting tools.
Planing	The wood is fairly easy to plane.
Turning	Turning properties are reported to be rather poor.
Boring	The wood is characteristically very easy to bore.
Mortising	Mortising properties are reported to be poor.
Gluing	Under controlled conditions, Ash is reported to glue with satisfactory results.
Nailing	White ash is reported to possess good resistance to splitting, and has good nail-holding properties.
Screwing	The timber has fairly good screwing properties.
Sanding	

	The wood is reported to have satisfactory sanding characteristics.
Polishing	Polishing qualities are reported to be good.
Staining	The wood has good staining characteristics and is often finished in black.
Varnishing	The wood has satisfactory varnishing qualities.

Drying for: *Fraxinus americana*

Ease of Drying	Air-seasoning is reported to occur at a faster rate than average, with very little shrinkage. Kiln-drying yields satisfactory results, but low initial temperatures are required.
Drying Defects	Drying defects common in this species include gray-brown sapwood stains (sticker marks, stains), and surface checks (in 6/4 and thicker stock). These are attributable to trees from wet sites, drying too slowly. Distortion and end-splitting may also occur, and existing shakes may open up.
Kiln Schedules	T8-B4 (4/4), T5-B3 (8/4) US
T/R Ratio	1.63 This indicator is more meaningful if it is used together with other drying information and actual shrinkage data in the tangential and radial directions. (Refer to the Numerical Values window).

*Credits for information:
Woodworkersource.com*