

## Properties of Wood

Hardwoods	Average Dried Weight #s/CF	Volumetric Shrink %	Tangential/Radial Ratio Shrinkage	Janka Hardness lbf*	Allergen Toxicity**
Alder, Red	28	12.6	1.7	590	S, E, L, ?
Apple	52	17.6	1.8	1730	None Noted
Ash, White	42	13.3	1.6	1,360	S, L 2
Beech-European	44	17.3	2.0	1450	S, E, L, 2
Birch, Paper	38	16.2	1.4	910	S, L 2
Cherry, Black	35	11.5	1.9	950	L 1
Chestnut, Horse	31	No data	No data	820	No Data
Cottonwood	28	13.9	2.4	430	None Noted
Elm-American	35	14.6	2.3	830	S, E 1
Elm-Red	38	13.8	1.8	860	S, E 1
Holly	40	16.9	2.1	1020	None Noted
Lilac	59	No data	No data	2350	No Data
Laburnum	53	No data	No data	2020	T 2
Locust, Black	48	10.2	1.6	1,700	S, E 3
Locust, Honey	47	10.8	1.6	1580	No Data
Madrone	50	18.1	2.2	1460	None Noted
Maple, Big Leaf	34	11.6	1.9	850	S, L 3
Myrtle	40	11.9	2.9	1,270	S, L 2
Oak, Red	44	13.7	2.2	1,290	S, E, L 2
Oak, White	47	16.3	1.9	1,360	S, E, L 2
Pear	43	13.8	2.9	1660	No Data
Plum	50	No data	No data	1550	No Data
Sycamore	34	14.1	1.7	770	None Noted
Walnut, Black	41	12.8	1.4	1,010	S, E, L 2
Walnut, English	41	13.0	1.4	1220	S, E, L 2
<b>Softwoods</b>					
Monkey Puzzle	34	No data	No data	320	No Data
Yew	28	9.7	1.4	1600	S, E, L, T 4
<b>Exotic Hardwoods</b>					
Bubinga	56	13.9	1.4	2410	S ?
Cocobolo	68	7.0	1.6	2960	S, E, L 4
Jatoba	57	12.1	1.9	2690	S ?
Mesquite, Black	52	8.5	1.3	1940	S 2
Mesquite, Honey	51	4.8	2.0	2340	S 2
Padauk	47	7.6	1.6	1970	S, E, L 3
Purpleheart	56	10.6	1.7	2520	S, E 2
Wenge	54	12.9	1.7	1930	S, E, L 3

\*Janka Hardness is measured by the pounds of force (lbf) required to press a .444" diameter ball, halfway in to a piece of wood

\*\*S=Skin, E=Eyes, L=Lungs, T=Toxic. The character on the right is the potency. 4 is the highest potency. ?=Potency not known

**Sources/References:** Wood! Identifying and Using Hundreds of Wood Worldwide, Eric Meier

<https://www.wood-database.com>

USDA Wood Handbook: Wood as an Engineering Material