

Engineering ToolBox - Resources, Tools and Basic Information for Engineering and Design of Technical Applications!



- the most efficient way to navigate the Engineering ToolBox!

Density of Various Wood Species

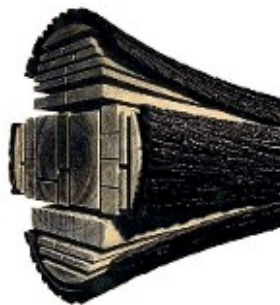
Density of various wood species - apple, ash, cedar, elm and more

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Densities of seasoned & dry wood are indicated in the table below:

Solid	Density (kg/m ³) (lb/ft ³)
Alder	420 - 680
Afromosia	710
Agba	510
Apple	650 - 850
Ash, white	650 - 850
Ash, black	540
Ash, European	710
Aspen	420
Balsa	110 - 140
Bamboo	310 - 400
Basswood	320 - 590
Beech	700 - 900
Birch	510 - 770
Birch, British	670
Birch, European	670
Blue gum	1000
Box	950 - 1160

Solid	Density (kg/m ³)
	(lb/ft ³)
Butternut	380
Cedar	490 - 570
Cedar of Lebanon	580
Cedar, western red	380
Cherry	630 - 900
Cherry, European	630
Chestnut, sweet	560
Cottonwood	410
Cypress	510
Dogwood	760
Douglas Fir	530
Ebony	1110 - 1330
Elm	540 - 600
Elm, American	570
Elm, English	550 - 600
Elm, Dutch	560
Elm, Wych	690
Elm, Rock	820
Gaboon	430
Greenheart	1040
Gum, Black	590
Gum, Blue	820
Gum, Red	540
Hackberry	620
Hemlock, western	500
Hickory	600 - 930
Holly	760
Iroko	660
Juniper	560
Keruing	740
Larch	500 - 560
Lignum Vitae	1170 - 1330
Lime, European	560
Locust	670 - 710
Logwood	910
Madrone	740
Magnolia	570
Mahogany, African	500 - 850
Mahogany, Cuban	660
Mahogany, Honduras	650
Mahogany, Spanish	850
Maple	620 - 750
Meranti, dark red	710
Myrtle	660
Oak	600 - 900
Oak, American Red	740
Oak, American White	770
Oak, English Brown	740
Obeche	390
Oregon Pine	530

Solid	Density (kg/m ³)
	(lb/ft ³)
Parana Pine	560
Pear	610 - 730
Pecan	770
Persimmon	900
Philippine Red Luan	590
Pine, pitch	830 - 850
Pine, Corsican	510
Pine, radiata	480
Pine, Scots	510
Pine, white	350 - 500
Pine, yellow	420
Plane, European	640
Plum	660 - 780
Poplar	350 - 500
Ramin	670
Redwood, American	450
Redwood, European	510
Rosewood, Bolivian	820
Rosewood, East Indian	900
Sapele	640
Satinwood	950
Spruce	480 - 780
Spruce, Canadian	450
Spruce, Norway	430
Spruce, Sitka	450
Spruce, western white	450
Sycamore	400 - 600
Tanguile	640
Teak, Indian	660 - 980
Teak, African	980
Teak, Burma	740
Utile	660
Walnut	640 - 700
Walnut, Amer Black	630
Walnut, Claro	490
Walnut, European	570
Water gum	1000
Whitewood, European	470
Willow	400 - 600
Yew	670
Zebrawood	790

• $1 \text{ kg/m}^3 = 0.001 \text{ g/cm}^3 = 0.0005780 \text{ oz/in}^3 = 0.16036 \text{ oz/gal (Imperial)} = 0.1335 \text{ oz/gal (U.S.)} = 0.0624 \text{ lb/ft}^3$
 $= 0.000036127 \text{ lb/in}^3 = 1.6856 \text{ lb/yd}^3 = 0.010022 \text{ lb/gal (Imperial)} = 0.008345 \text{ lb/gal (U.S.)} = 0.0007525$
 ton/yd^3

- [Lumber dimensions](#)
- [Mass and density in the Imperial system](#)
- [Unit Converter](#)

After felling, timber will lose moisture to align itself with the atmospheric conditions. Moisture content should be lower than 20% to stop fungal attack. Seasoning is the name of the process where moisture content is reduced to the appropriate level for proposed use.

Shrinkage will occur as a result of the moisture loss - typical 3-4% across the grain.

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Related Topics

- **Material Properties** - Material properties for gases, fluids and solids - densities, specific heats, viscosities and more
- **Density** - Density of different solid materials, liquids and gases. Definitions and conversion calculators.

Related Documents

- **Board Feet Chart and Calculator** - Board feet - volume measurement of lumber
- **Combustion of Wood - Heat Values** - Firewood and combustion of wood heat values - for species like Pine, Elm, Hickory and more
- **Densities of Common Materials** - Densities of common products in both Imperial and SI-units
- **Density of Selected Solids** - Density of selected solids
- **Density, Specific Weight and Specific Gravity** - An introduction to density, specific gravity and specific weight - formulas with examples
- **Drill Bit Speed - Hardwood and Softwood** - Hardwood and softwood drill speed chart
- **Fire Wood - the Cord** - The cord is the most common unit for purchasing fuel wood
- **Glue-Laminated Timber - Dimensions** - Typical sizes of glue-laminated timber
- **Hardwood and Softwood Species** - Species of hardwood and softwood
- **Hardwood Lumber - Dimensions** - Size of hardwood lumber
- **Lumber - Weights** - Weights of green, kiln dried and pressure treated lumber boards
- **Machine Stress Rated (MSR) and Machine Evaluated (MEL) Lumber** - Grading of lumber in North America
- **Nails and Spikes - Withdrawal Force** - Allowable withdrawal load for nail and spikes
- **Sandpaper - Grit Sizes** - Grit sizes ranging 12 - 600
- **Softwood and Hardwood - Structural Strength Classes** - Strength classes, bending stress and mean density of hardwood and softwood
- **Softwood Lumber - Grading** - Rough lumber, surfaced lumber (dressed), worked lumber, shop and factory lumber and yard lumber
- **Softwood Lumber - Standard Sizes** - Nominal and minimum-dressed lumber sizes
- **Structural Lumber - Properties** - Properties of structural lumber
- **Surface Finishing** - Lumber and surface finishing abbreviations
- **Timber - Structural Lumber Section Sizes** - Basic size, area, moments of inertia and section modulus for timber - metric units
- **Urban Heights of Trees** - Height of trees commonly used in towns and urban areas
- **Water Demand of Trees** - Trees and their relative water demand

- **Wood - Moisture and Compressive Strength** - Red Spruce, Longleaf Pine and Douglas Fir - moisture content and their compressive strength
- **Wood and Bio Mass Heat** - Combustion values of wet and dry wood - *Btu/pounds, kJ/kg and kcal/kg*
- **Wood Columns - Safe Loads** - Safe loads for wood columns
- **Wood Density and Moisture Content** - Density of wood versus moisture content
- **Wood Hardness** - Soft and hardwood - Janka Hardness
- **Wood Header and Supported Weight** - The weight that can be supported by a double or triple wood header
- **Wood Screws - Withdrawal Forces** - Allowable withdrawal load force
- **Wood Species - Moisture Content and Weight** - Weight of green and air-dried fire wood
- **Wood, Panel and Structural Timber Products - Mechanical Properties** - Density, fibre stress, compressive strength and modulus of elasticity of clear wood, panel and structural timber products

Tag Search

- [en: wood density densities](#)

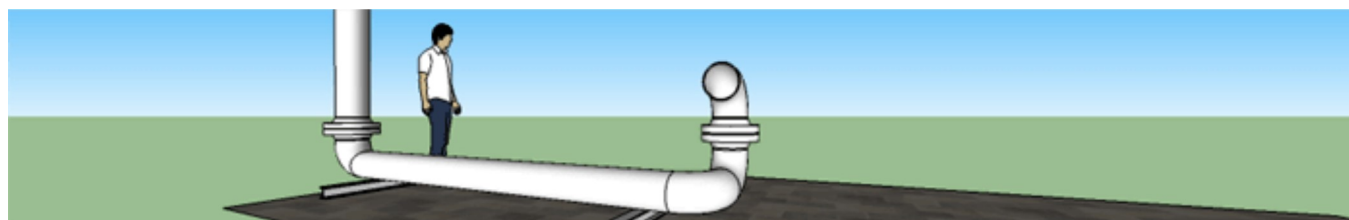
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- editor.engineeringtoolbox@gmail.com

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Unit Converter

Temperature

0.0

☒ °C

☐ °F

Convert!

Length

1.0

☒ *m*

☐ *km*

☐ *in*

☐ *ft*

☐ *yards*

☐ *miles*

☐ *naut miles*

Convert!

Area

1.0

☒ *m²*

☐ *km²*

☐ *in²*

☐ *ft²*

☐ *miles²*

☐ *acres*

Convert!

Volume

- ☒ m^3
☐ *liters*
☐ in^3
☐ ft^3
☐ *us gal*

Convert!

Weight

- ☒ kg_f
☐ N
☐ lb_f

Convert!

Velocity

- ☒ m/s
☐ km/h
☐ ft/min
☐ ft/s
☐ mph
☐ *knots*

Convert!

Pressure

- ☒ $Pa (N/m^2)$
☐ *bar*
☐ $mm H_2O$
☐ kg/cm^2
☐ *psi*
☐ *inches H₂O*

Convert!

Flow

- ☒ m^3/s
☐ m^3/h
☐ *US gpm*
☐ *cfm*

Convert!

Scientific Online Calculator



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