

W O O D

The information in this document was compiled over time from a variety of sources, and is intended for informational and entertainment purposes. Be sure to consult with experts when you need to be certain that a type or quality of wood is appropriate for your intended application.

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Renewable Resource -

Wood is a renewable resource. Most wood used comes from areas that are replanted. Some, especially from third-world countries, comes from deforestation, which can be disastrous to the environment. Some woods, like olive, take a long time to grow and are thus available in limited quantities. Similarly, many woods come from only from certain regions and are available in limited quantities.
80,000 to 100,000 tree species

Wood chemistry:

Cellulose (50%) - The framework of wood cells, made up of linear chains of glucose

Hemicellulose (23-25%) - Branched chains of various sugars

Lignin (20-25%) - The hardening, thin cementing layer between wood cells.

Wood is generally classified as “softwood” and “hardwood”, and generally, but not necessarily, relate to their softness or hardness.

Softwoods - Softwoods consist of coniferous (cone bearing) trees, which are mostly evergreen and have needles or scale-like leaves. They belong to the botanical group Gymnospermae. Their inner construction is made of long, narrow shapes, connected with pits. Spruce, pine and other needle-bearing trees are examples of softwoods. They are often used to make furniture and are preferred for carving. Their surface is soft, and, as such, they are more vulnerable to marks and scratches.

Hardwoods - Hardwoods consists of deciduous (leaf shedding) trees, which generally bear flowers and fruit of some sort. They belong to the botanical group Angiospermae. Their inner fibers are short and narrow. Oak, maple, cherry and other broadleaf trees are examples of hardwoods. They generally have less of a tendency to warp than softwoods, and are usually used in furniture construction.

Solid Wood -

Refers to the solid inner and outer exposed surfaces. It can be all one piece, or made from a number of different pieces of solid wood that are joined together. Solid wood is usually used for smaller pieces or panels, as larger pieces have a tendency to warp when the level of humidity changes. Solid wood is dried in kilns until it reaches a moisture content of approximately 6%, its optimal condition.

Often, solid woods are pieced together for added strength. Wide boards of solid wood are usually cut long and narrow, then glued together to make them look like one solid piece. In the case of thick, long pieces of furniture, blocks are glued together, then machined to the desired shape.

Veneers - Veneers are made of thin, solid hardwood sheets that are glued to the surface of wood that is of lesser quality, or grade. Long, wide sheets are produced by slicing, roll cutting or sawing the log.

Plywood -

Made by bonding thin sheets of solid wood together with heat and glue under high pressure. Makes it very strong, warp resistant, and usually longer lasting. Its strength is due, in large part to the greater stability that results from facing the grain of each sheet in a different direction, called a cross grain. Plywood is less expensive than solid wood, as the quality of the woods used doesn't have to be the best, and is sometimes made with layers of engineered wood. It is usually faced with a surface of veneer to give it the look of a good, solid hardwood.

Engineered Wood -

Also called Flakeboard, Chipboard or Particleboard, engineered wood is made by mixing flakes, chips or particles of wood with resins and binding agents, then forming sheets under great pressure and heat. The process makes Engineered Wood very strong and quite resistant to warping.

Pressure-Treated Wood -

This term refers to wood, usually pine, which has been chemically treated to ward off insects and rot. Some woods, like cedar and redwood, are never treated because they have natural insect repelling and water resistance qualities. The drawbacks to using pressure treated wood are rapid discoloration, prone to splitting, and many chemicals are in the wood that can discolor it.

As with all woods, it is always best to have your pressure treated wood seasoned, cleaned, and sealed so that these natural drawbacks can be avoided.

Wood Terms / Terminology –

Annual Growth Ring - The layer of wood growth added each growing season to the diameter of the tree. In the temperate zone the annual growth rings of many species such as oaks and pines are readily distinguished because of differences in the cells formed during the early and late parts of the seasons.

Bark Pocket - An opening between annual growth rings that contains bark. Bark pockets appear as dark streaks on radial surfaces and as rounded areas on tangential surfaces.

Bee's Wing or Mottled - This figure also draws its name from its comparison to a bee's wing. The figure is made up of an interlocking pattern of distorted rectangles which are slightly darker on their perimeter than at their center. This mottled effect gives the surface an appearance of depth. It is an extremely busy figure and is usually used as a cross-banding for borders.

Birdseye - A series of circles which look like a bird's eye formed from sharp dips in the annual rings continuing for many years.

Birdseye - Small localized areas in wood with the fibers indented to form small circular or elliptical figures on the tangential surface which are used for decorative purposes. Sometimes found in sugar maple but only rarely in other hardwood species.

Blisters - Apparent elevations in the wood that come from uneven contours of the annual rings. This does not mean there are pockets in the wood!

Broad-leaved trees - Trees which shed their leaves in the autumn. Most broadleaved or deciduous trees are hardwoods and have broad leaves.

Broken Stripe - Just as the name says. Formed by variations in the spiral course of the fibers around the tree.

Burls - Growths on the tree trunk formed by buds which did not develop and thus give irregular contortions.

Burl (Burr) - Swirl or twist in wood grain usually occurring near a knot, valued as the source of highly-figured burl veneers used for ornamental purposes.

Cell - General term for the minute units of wood structure, including wood fibers, vessel segments and other elements.

Cellulose - The carbohydrate that is the principal constituent of wood. It forms the framework of wood cells.

Check - A lengthwise separation of the wood which extends across the rings of annual growth, usually resulting from stresses set up in wood during seasoning.

Conditioning - The exposure of a wood to the influence of a prescribed atmosphere for a stipulated period of time, or until a stipulated relation is reached between material and atmosphere.

Crotch - Taken from the forks in a trunk or large branches which produce a pattern which resembles a bunch of plumes or feathers.

Dovetail A type of joint used extensively on drawer fronts characterized by a trapezoid shape that resists pullout better than any other joint.

Dry, Air - Process of drying or seasoning lumber naturally by exposure to air.

Dry, Kiln - Process of drying or seasoning lumber naturally by placing the lumber in a kiln and exposing the lumber to heat for a prescribed period of time.

Fiddle Back - Fine even waves in the grain wood.

Fine Woodwork - Products such as trim, paneling used for architectural woodwork to provide a high quality decorative appearance to rooms.

Fingerjoint - An end joint made up of several meshing wedges or fingers of wood bonded together with an adhesive. Fingers are sloped and may be cut parallel to either the wide or narrow face of the piece.

Finger Roll - Wavy pattern in which waves are about the size of a man's finger.

Glulam - Structural wood product made by bonding together laminations of dimension lumber.

Grade - A classification of lumber or other wood products based on criteria of quality such as natural characteristics and strength.

Grain, Close-Grained - Wood Structure of some hardwoods, such as birch and maple, having narrow, inconspicuous annual rings with little difference in pore size between springwood (early wood) and summerwood (late wood).

Grain, Cross - A pattern in wood in which the fiber and other longitudinal elements deviate from a line parallel to the sides of the piece as a result of sawing or as a result of inconsistent grain direction as a growth characteristic.

Grain, Edge (quarter-sawn, quarter-cut) - Terms referring to timber or veneer cut in a plan approximately at right angles to the annual rings.

Grain, Flat (flat-sawn, plain-sawn) - Lumber that has been sawed parallel to the length of the log and approximately tangent to the growth rings.

Grain, Open-Grained - Wood Structure of some hardwoods such as oak, chestnut and ash in which there is a distinctive difference in the pore sizes between springwood (early wood) and summerwood (late wood). The term coarse is also sometimes used to describe open grain woods.

Grain, Raised - A roughened condition of the surface of dressed lumber in which the hard latewood is raised above the softer earlywood but not torn loose from it.

Grain, Spiral-Grain - An arrangement of the fibers in a piece of timber or veneer which results from their growth in a spiral direction around the trunk of the tree.

Green (unseasoned) - Freshly sawed lumber, or lumber that has received no intentional drying. Wood that has become completely wet after immersion in water would not be considered green, but may be said to be in the green condition.

Growth Ring - Stripes on quarter sawed surfaces and parabolas (arches) or ellipses on plain sawed surfaces.

Heartwood - The wood extending from the true center to the sapwood, and whose cells no longer participate in the life processes of the tree. Heartwood may contain gums, resins, and other materials that usually make it darker and more decay resistant than sapwood.

Heartwood - The inner layers of wood which, in the growing tree, have ceased to contain living cells and in which the reserve materials (e.g. starch) have been removed or converted into heartwood substances. It is generally darker in color than sapwood, though not always clearly differentiated.

Knots - The bases of limbs.

Knot - That portion of a branch or limb that has been surrounded by subsequent growth of the stem. The shape of the knot as it appears on a lumber surface depends on the angle of the cut relative to the long axis of the knot.

Knot, Loose - A knot which is not held firmly in place by growth or position and which cannot be relied upon to remain in place.

Knot, Pin - A knot that is not more than 12.5mm (1/2") in diameter.

Knot, Sound - A knot that is solid across its face, at least as hard as the surrounding wood, and shows no indication of decay.

Laminate, Wood - A product made by bonding layers of wood or other material to a wood substrate.

Lumber - The product of the saw and planing mill not further manufactured than by sawing, resawing, passing lengthwise through a standard planing machine, cross-cutting to length, and grading.

Lustre - Many woods are more fibrous than others and will reflect light differently when viewed from different directions. This has the effect of changing the appearance of the surface making it appear darker or lighter. Veneers which have a very high luster are usually those which have a fine, tight, fibrous grain, and will exhibit a superior figure. The term luster typically would apply to bee's wing satinwood or flame mahogany.

Millwork - Planed and patterned lumber for finish work in buildings, including items such as sash, doors, cornices, panelwork, and other items of interior or exterior trim, but not flooring or siding.

Moisture Content - The amount of water contained in the wood, expressed as a percentage of the weight of the oven-dry wood.

Moisture Content - Quantity of water in a material, expressed as a percentage of the material's weight. Moisture content is the most critical factor determining the amount of useful heat from biomass combustion, because the water is evaporated before heat is available for the application. For freshly cut wood the moisture content is high, for air-dried wood the moisture content has adapted to the humidity of the environment, and for oven-dried wood the moisture content is zero.

Mottle - Uneven wavy variations in fibers.

Pecky - This is a strange figure and as the name implies appears to have been pecked by some bird, leaving darkened marks over the surface. It is much like the bird's-eye figure and is also caused by the infection of the annular growth ring. It is then usually roll cut to reveal the figure. When one species, the Scandinavian birch exhibits this figure, it is called Karelian or Masur birch. It is a pinkish white veneer with dark brown peck marks over the entire surface. Another North American veneer which often displays this figure is pecan.

Pit - A recess in the secondary wall of a cell, together with its external closing membrane; open internally to the lumen. Note: Essential components are the pit cavity and the pit membrane.

Pitch - The accumulation of resin in wood.

Pith - The small cylinder of primary tissue of a tree stem around which the annual rings form.

Pulpwood - Wood used to produce pulp used in the manufacture of paper products. Pulpwood is usually wood that is too small, of inferior quality, or the wrong species to be used in the manufacture of lumber or plywood. (9)

Quilted & Blistered - This has the effect of scales sometimes up to 3 inches around which connect to each other. Often only a small area of the veneer will be quilted while others will have the entire surface. Like many other figures there is no definite conclusion as to their formation however they are highly prized and can multiply the value of the conventional figure by many times. Among the most common species to exhibit this figure are maple and mahogany which is called 'pomelle' when quilting occurs.

Raindrop - Figures which look like raindrops striking a surface on a slant. Caused by waves in the fibers which occur singly or in groups with spaces between.

Rays - Strip of cells extending radially within a tree and varying in height from a few cells in some species to 100mm (4") which cause an appealing grain pattern.

Resin - An ingredient of coatings which acts as a binder and gives the coating physical properties such as hardness and durability.

Ring, annual - In wood and bark, a growth layer of one year as seen in cross section (Ring, growth).

Ring, growth - In wood and bark a growth layer as seen in cross section.

Roe - A short broken stripe.

Sap - The watery fluid that circulates through a tree carrying the chemical food that enables the tree to grow.

Sapwood - The wood of pale color near the outside of the log. Under most conditions sapwood is more susceptible to decay than heartwood.

Sawed, Plain - Wood is cut at right angles to the rays, and therefore tangent to the annual rings.

Sawed Quarter - Wood is cut parallel to the rays and across the rings.

Seasoning - The process of drying lumber either naturally, or in a kiln, to a moisture content appropriate for the conditions and purposes for which it is to be used.

Silver Grain - Rays that appears as flecks in quarter sawed lumber.

Spalted - This figure most often is available only in solid lumber and is rare as veneer. It usually seen in maple and divides the surface in trails of black lines, sometimes very fine and others much wider, and varying shades of gray. The figure is created by a fungus which grows in a fallen dead tree. It represents the first stages of decay and if allowed to continue, the wood will become rotten and unusable.

Springwood (early wood) - The portion of the annual growth ring that is formed during the early part of the season's growth; it is usually less dense, lighter in color, and weaker mechanically than summerwood.

Stripe or Ribbon - Alternating lighter and darker stripes caused by reflection of light from adjacent layers of wood with interlocked grain.

Summerwood - The portion of the annual growth that is formed after the springwood (early wood) formation has ceased. It is usually more dense and stronger mechanically than springwood (early wood).

Swirl - Barrel shaped bulges in the trunk.

Texture - The relative size and arrangement of the wood cells.

Toughness - A quality of wood which permits the material to absorb a relatively large amount of energy, to withstand repeated shocks, and to undergo considerable deformation before breaking.

Veneer, Rotary Cut - Veneer cut in a lathe which rotates a log, chucked in the center, against a knife.

Veneer, Sawn - Veneer produced by sawing.

Veneer, Sliced - Veneer that is sliced from a log with a knife.

Vessel - An axial series of cells that have coalesced to form an articulated tube-like structure of indeterminate length; the pits to congeneric elements are bordered. Syn. Trachea.

Wood Cells (vessels) - The basic units comprising wood having open ends and set one above the other so as to form continuous tubes. The openings of the vessels on the surface of a piece of wood are usually referred to as pores.

Wood Cut - an engraving on wood; also, a print from such an engraving.

Wood Grades -

Wood is graded by the way it looks, and with different terminology for the furniture and construction industries.

For furniture:

B and Better - minimal or no blemishes

C Select - some knots and minor blemishes

D Select - larger imperfections

For construction:

No. 1 - small knots and few blemishes

No. 2 - knots and blemishes

No. 3 - loose knots, knot holes and blemishes

No. 4 - low quality

No. 5 - bottom of the heap

Wood Floor Hardness Scale

Dent resistance in Lbs.

Rating / Wood Species

3680 Brazilian Walnut

3170 Indian Rosewood

2720 Brazilian Rosewood

2690 Bubinga

2350 Brazilian Cherry

2160 Goncalo Alves

1910 Jarrah

1860 Purpleheart

1820 Pecan

1800 Hickory

1750 Benge

1725 African Pedauk

1620 Wenge
1500 Merbau
1450 Eastern Maple
1360 White Oak
1350 Natural Moso Bamboo
1320 Ash
1300 Beech
1290 Northern Red Oak
1260 Carbonized Moso Bamboo
1260 Iroko
1210 Birch
1180 African Cherry
1110 Aniegre
1080 Mountain Ash
1060 Southern Red Oak
1010 Black Walnut
1000 True Teak
950 American Cherry
940 Western Maple
830 African Mahogany
800 Honduran Mahogany
540 Pine
440 Douglas Fir

Types of Wood -

In the kitchen, you're likely to find one of the following types of wood. Each is identified as either a Softwood or Hardwood, with its inherent qualities, color and a short list of primary uses.

Acacia - Hardwood. Hard and durable. Reddish yellow and brown. Most common in hot deserts. Limited by the small size of the trunk and branches.

Alder - Hardwood. Straight grained, fine textured, moderately light and soft. Uniform in color; pale yellow to reddish brown. Common for ready-to-finish furniture, plywood, matches and foundations.

Apple - Hardwood. Medium hard with open grain. Medium brown , sometimes reddish brown, with brown to dark brown grain.

Ash - Hardwood. Heavy, stiff, strong, hard, with good bending properties; coarse, straight-grained wood with few knots. Ranges in color from blond cream to dark tans and browns, lightens as it ages. Used for bentwood chairs and furniture, bats, boats, tool handles, among others.

Aspen - Hardwood. Even grained and somewhat soft. Light-colored. Used primarily for its shavings, for pulp and waferboard.

Balsa (Guano, polak, or topa) - Hardwood. The lightest and softest of all woods; very porous. Used primarily for buoyancy, insulation and sound absorption.

Bamboo - Not a tree, but a grass. Stable, extremely light and elastic, it is the strongest woody plant on earth. Fast growing, readily renewable resource.

Basswood (American Lime) - Hardwood. Light and soft, with closed grain structure, resists splitting and is easily worked. Cream to pale yellow colors, turns darker with age. Used for piano keys, doors and trim, luggage, veneer.

Beech - Hardwood. Heavy, medium, shock resistant, easily bent with steam; has a tight, closed grain structure. Light to red-brown color, or white to blonde with green hue on some. Used in cabinetmaking, chairs and stools, paneling, flooring, food containers, and more.

Birch (Yellow Birch, Silver Birch, Hard Birch, Betula wood, American Birch) - Hardwood. Tight, close straight grain, with even texture. Light blonde to red-brown, with light tan to dark brown grain lines. Used mainly for furniture, trim, paneling, cabinets, plywood.

Boxwood - Hardwood. Dense and heavy with an even texture and fine grain. Light yellow. Used primarily for tool handles, musical instruments and crafting.

Brazilwood (Pernambuco, Bahia) - Hardwood. Hard and heavy, with a fine texture and straight grain. Ranges from pale to orange-red and to red-brown. Used primarily for violin bows, gunstocks, and shaping.

Bubinga (African Rosewood) - Hardwood. Moderately coarse with straight grain and a generally even texture. Reddish brown with purple veins. Used primarily for furniture, shaping, and utensils.

Butternut (*Juglans cinerea*) Medium density hardwood with straight grain and even texture. Color is very pale tan with dark brown grain line. Also called White Walnut. Butternut AKA: White walnut Description: Straight-grained, coarse-textured wood. Medium brown heartwood. Common Use: Furniture, carving, interior joinery. Butternut Light brown, distinct grain pattern, good for natural-finished sculpture, soft (dents easily), very easy to carve, quickly dulls tools Easy Course \$4.10 Butternut (White Walnut) - Hardwood.

Camphorwood (*Cinnamomum camphora*) Medium density hardwood with a texture similar to Mahogany. Grain is generally figured and color is amber brown with streaks

and swirls of darker browns and red brown. Native to Japan and China, it is now successfully grown in other parts of the world.

Canary Wood (*Liriodendron canarifera*) Medium density hardwood with straight grain and even texture. Sapwood is creamy-white, heartwood varies from yellow-brown to pale olive-brown, streaked with olive-green, dark grey, or pinkish-brown.

Cape Blackwood (*Diospyros* spp.) Dense hardwood with straight grain and even texture. Color is medium brown to dark brown, though occasionally can be found as extremely dark brown.

Carob (*Ceratonia siliqua* L.) A dark evergreen tree, which is found all around the Mediterranean, but in Egypt only found in gardens. It is used for furniture but also for mummy labels. hard, strong and good quality

Cedar (*Juniperus virginiana*) A soft wood with open grain. Heartwood is a red to brown color, sapwood is white to blonde color. Very aromatic. Grain tends to be straight. Cedar: Fresh sweet odor and reddish in color. Easy to work and uniform in texture and is resistant to decay. Used in chest making, closet lining, shingles, posts, dock planks, novelties and Venetian blinds.

Cedar: The wood from this large, coniferous evergreen tree is a popular favorite for decks. It not only looks and smells wonderful, it is also extremely durable. The texture of cedar is soft, and the grain of cedar is intricate and beautiful. Cedar produces natural tannins that are thought to be naturally resistant to insects. These tannins, however, can spot, especially after rainfalls, and this continues until the wood becomes fully acclimatized (about three years). Sealer colors that work particularly well with cedar are the natural redwood or cedar tinted, or clear. These sealers allow the natural grain of the wood to show through, while at the same time protecting the wood through a color tint. Cedar, Western Red AKA: British Columbian red cedar Description: Fairly soft, aromatic wood. Red-brown in color, fading to silver-gray after long exposure to weathering. Common Use: Shingles, decking, exterior siding.

Cedar, Yellow Description: A pale-yellow, even-textured wood with fine, straight grain. It is relatively light, and stiff. Common Use: Furniture, joinery, boatbuilding
Cedar Soft Construction timber

Chakte Koc (*Sickingia salvadorensis*) Moderately heavy wood with a fine texture and close grain. Color is attractive deep red with wavy light and dark brown streaks. Similar in color to Padauk.

Chechen (*Metopium brownii*) A dense, tight grained wood with a high lustre. Color ranges from ambers to browns and reds. Grain patterns can create a fairly flamboyant pattern.

Cherry (*Prunus cerasia*) Hard straight grained with firm texture. Heartwood is reddish brown to deep red, with brown flecks, and will naturally darken with age. Turns and finishes well.

Cherry: Close-grained and resists warping and shrinking. It will redden when exposed to sunlight and ages well. Used in cabinet making, boat trim, novelties, solid furniture handles and turned projects.

Cherry - Stiff, strong, stable, resistant to shock. Moderately hard and heavy. Bends and glues well. Great stability makes it popular for carpentry levels, pattern making and backing for print plates. Used for: Fine Furniture, Fine Veneer, Interior Trim, Paneling, Cabinets, Instrument Cases.

Cherry, Black AKA: American Cherry Description: Hard, straight-grained wood with fine texture, Heartwood is red-brown to deep red. Common Use: Furniture, musical instruments, tobacco pipes.

cherry rich auburn; graceful grain USA

Cherry Reddish brown, wavy grain can be difficult to carve, excellent for natural-finish sculpture Hard Fine \$4.90

Cherry Hard Furniture

Cherry: Type: Hardwood Appearance: Generally straight grained with fairly uniform texture. Light to dark reddish hue. Physical Props: Moderately hard and heavy, strong and stiff. Polishes to great finish that naturally darkens with age.

Cherry - Hard, straight-grained hardwood with fine texture. Heartwood is red-brown to deep red. Cherry darkens with exposure to light over a period of 6-12 months.

Chestnut (*Castanea dentata*) Medium density hardwood with closed, straight grain. Fresh cut, the wood is blonde, but aging matures to a wide variety of reddish brown colors. Polishes very nicely.

Chestnut AKA: American chestnut, wormy chestnut Description: Coarse textured. Similar to oak in appearance. Most lumber comes from standing dead trees, hence "wormy" due to insect attack. Common Use: Furniture, coffins, stakes.

Cocobolo (*Dalbergia retusa*) A wild grained species can be found in brilliant orange, rust, purple, and yellow, with distinctive superimposed lines of purple and black. The color darkens gradually after cutting. Is very easy to polish.

Cocobolo AKA: Granadillo Description: Hard, heavy wood with irregular grain and medium texture. Very nice coloring, from purple to yellow, with black markings turning to deep orange-red on exposure. Common Use: Turning, knife handles

Cork wood (*Aeschynomene Elaphroxylon*) A soft-stemmed shrub with large orange-yellow flowers. It is found on river-banks of rivers and lakes in Africa. It must have been imported from the lands south of Egypt. There are only a few objects. very light-weight and durable

cork / corkwood (phellem) - deciduous

Lightweight elastic outer bark of the 25+year-old Cork Oak (*Quercus suber*), used especially for bottle closures, insulation, floats and crafts. Can be stripped every 1-2 weeks. Renewable.

It is lightweight, rot resistant, fire resistant, termite resistant, impermeable to gas and liquid, soft and buoyant.

Scraps are ground, baked, and pressed into shapes.

Cypress, Australian Description: With a wide range of cream/straw/honey brown tones and filled with darker character knots, Australian Cypress is the ideal flooring choice wherever a warm, rustic country look is desired. Growing slowly in a semi-arid area in Australia, provides this specie with a unique property as the only commercial softwood harder than red oak. It is the superior "softwood" for both residential and commercial use. Color Range & Color Change: Color Range: Australian Cypress has an extreme range of color variability. Color Change: Australian Cypress will exhibit a modest amount of color change over time with a slight muting of the color range and some ambering. Australian Cypress Photo Page Hardness: Australian Cypress is 110% as hard as red oak (1375 on the Janka scale vs. 1260 for red oak)

Ebony, Gabon (*Diospyros ebenum*) A hard, heavy and durable wood, which takes a fine polish or gloss. Color is a very dark brown to almost black. Found primarily in Ceylon. Ebony AKA: Tendu Description: A hard, dense wood with fine, even texture and straight, irregular or wavy grain. Heartwood is dark brown to black. Common Use: Turning, musical instruments, knife handles.

Elm, American (*Ulmus alata*) A fine, closed grained hardwood with a resistance to splitting. Color ranges from blonde to a light tan color.

Elm, White AKA: Water Elm, Swamp Elm, Soft Elm Description: A coarse-textured, strong, medium-density wood. Usually straight-grained but can be interlocked.

Heartwood is pale red-brown. Has good bending qualities. Common Use: Boat-building, furniture.

Elm, Dutch & English AKA: Red Elm Description: Coarse-textured wood, heartwood is beige-brown in color. Common Use: Furniture, bending, turning, boat-building.

elm greenish brown; distinct grain USA

Elm Hard Furniture, gun stocks, naves (hubs) of wooden wheels

Fir: Works easy and finishes well. Uniform in texture and nonresinous. Has low resistance to decay. Used in furniture, doors, frames, windows, plywood, veneer, general millwork and interior trim.

Fir, Douglas AKA: British Columbian pine Description: A straight-grained, red-brown wood with pronounced grain. Common Use: Construction, plywood

Douglas Fir Soft Construction timber, railway sleepers. Bark used for tanning

Fir, Silver AKA: Whitewood, white fir Description: A pale cream, almost colorless wood with fine texture and straight-grain. Common Use: Joinery, construction, boxes, plywood

Grenadillo (*Platymiscium yucatanum*) A dense open grain and heavy wood. Rich purple and brown coloring with pattern ranging from even to strong figure. This wood is occasionally confused with the *Dalbergia* species.

Gum wood (*Liquidambar styraciflua*) Sapwood is creamy-white with heartwood ranging from pink-brown to reddish-brown with darker streaks. Grain is usually irregular, with a fine, uniform texture.

Hemlock: Light in weight, uniformly textured. It machines well and has low resistance to decay and nonresinous. Used for construction lumber, planks, doors, boards, paneling, sub flooring and crates.

Hemlock Softwood with a faint grain. Pale in color, it's an economical choice which takes very well to painting or staining.

Hickory - Very hard, very heavy, very strong. Appalachian Hickory easier to work than that from other regions. Used for: Furniture, Handles, Cabinetry, Sporting Goods --- gymnastic parallel bars, skis.

Hickory AKA: Shagbark Hickory Description: Coarse-textured wood. Generally straight grained, but can be irregular or wavy. Heartwood is red-brown, sapwood is white.

Common Use: Sports equipment, chairs.

Hickory: Type: Hardwood Appearance: Tight generally straight grain with coarse texture. Pale to reddish brown. Physical Props: Very heavy, hard, strong, stiff, and shock resistant. Great stability and strength.

Holly (*Ilex aquifolium*) A relatively soft irregular grained wood with a coarse, even texture. Color is very light and ranges from white to pale-yellow, occasionally with a slight greenish-grey cast, with little or no figure.

Ipil (*Intsia bijuga*) Grain is interlocked with a coarse texture. Sapwood is creamy-white, heartwood is white to pale yellow which matures into medium-to-dark red-brown on exposure.

Jelutong AKA: Jelutong bukit Description: A soft, fine, even-textured wood with straight grain. Creamy pale brown in color. Common Use: Pattern-making, carving, drawing boards.

Katalox (*Swartzia cubensis*) A dense and heavy wood. Color is dark purple and brown with contrasting light blonde sapwood. The sapwood is similar to Satinwood.

Kiatt (*Pterocarpus angolensis*) Medium density hardwood with tight grain clusters. Golden to reddish brown heartwood has a nice wavy figure. Currently it is being used as a substitute for Teak.

Kingwood (*Dalbergia leguminosa*) A dense and heavy wood with open grain. Color is brownish purple fine stripes of black and luminous violet streaks, approaching royal blue. Found primarily in Brazil.

Kingwood AKA: Violet wood Description: Fine, even textured wood. Heartwood is a striped figure of violet-brown, black and golden yellow. Common Use: Inlays, marquetry.

Lacewood (*Plananus Occidentalis*) Grain is interlocked with a coarse texture. Color is reddish-brown or rust colored. When appropriately milled, the radial rays of grain take on a lacey effect.

EUROPEAN LACEWOOD *Cardwellia sublimis* Also called Silky Oak. Colour: light pink to light reddish brown with a silvery sheen. Flaky, speckled figure with dark flecks, varying from a small lacelike pattern to a larger "splashy" figure. Texture fairly coarse. Moderately hard and heavy, 37 lbs/cu.ft. Works easily and takes a lustrous finish. Fairly scarce. Queensland, Australia
lacewood (Australian silky oak) red; unique lacy ray pattern Australia

Larch AKA: Tamarack Description: A straight-grained wood of even texture. Pale to rich-red heartwood with light colored sapwood. Common Use: Joinery, construction, boat planking.
Larch Soft Boat-buildings, light furniture, wall panelling

Lignum Vitae (*Guaiacum officinale*) Extremely hard wood with straight grain. Color is greenish-brown but will fade to brown over time. Because of natural oils in the cell structure, the wood was used as bearings up through the turn of the century.
tropical American evergreen
angiosperms
dicotyledons

Lilac (*Syringa* spp.) A soft irregular grained wood with a coarse, even texture. Sapwood color is very light and ranges from white to pale-yellow, heartwood is darker with occasional pinkish to purple hues.

Lime AKA: **Linden** Description: A soft, straight-grained wood with fine uniform texture. Color is white to pale yellow. Very easy to carve with. (See also: Basswood). Common Use: Carving, hat blocks, broom handles.
Lime Soft Pencils, woodcarving

Locust (*Robinia pseudoacacia*) Medium density hardwood with closed, straight grain. Color is a medium brown with brown to dark brown grain. Occasionally color will run to a reddish brown.

Machiche (*Lonchocarpus catillo*) Generally a straight grained with a medium coarse texture. This wood has light and dark brown strips and is a beautiful sombre tone.

Mahogany (*Swietenia mahogani*) Medium density hardwood with closed, straight grain. Color is a medium brown to dark reddish brown.

Mahogany, Oregon (*Ulmaceae thomasii*) The heartwood is medium to light reddish-brown, straight grained with moderately fine texture. Also called Rock Elm or Mt. Mahogany, this wood is found in the N.W. and grows very slowly.

Mahogany: Fine grained, reddish brown in color. Very durable and resists swelling shrinking, and warping. Used for quality furniture such as cabinets; boat construction; wood facings and veneers.

Mahogany Description: A medium-textured wood with straight and even, or interlocked grain. Heartwood is red-brown to deep red. Common Use: Boat planking, carving, furniture, pianos.

MAHOGANY *Swietenia macrophylla* Also called: Honduran Mahogany, Tropical American Mahogany, Aruputanga Moegna - South America
mahogany, Honduran, Philippine reddish brown; indistinct grain Central America, Philippines
mahogany, ribbon reddish brown; beautiful flamelike highlights Africa
Mahogany Dark reddish brown, excellent choice for natural finish sculpture Medium
Medium \$5.10

Mango: (*Mangifera indica*) A beautiful Hawaiian hardwood introduced to the Islands probably in the early 1800's. A medium to large tree that frequently grows to 50 to 65 feet in height and 2 to 3 feet in diameter. The heart wood is a beautiful blond wood which frequently stains during drying to form unique and wonderful color variations. Mango is hard but works easily and polishes to a glossy finish.

Maple (*Acer saccharinum*) Medium density hardwood with closed, straight grain. Color ranges from blonde to tan. Burl has very unique swirls and beauty in the grain pattern. Maple: Fine textured and is fine textures. It is strong and hard. Has moderate shrinkage and machines well. Best used in flooring, fine furniture and woodenware such as bowling alleys.

Hard Maple - Heavy, strong, stiff, high resistance to shock and abrasive wear. Holds nails well. Glues, stains, turns, carves and polishes well. Used for: Furniture (especially Early American styles), Interior Trim, Millwork, Handles, Paneling, Cabinets, Woodenware, Toys, Bowling Pins, Shoe Heels, Flooring --- truck beds, ballrooms, skating rinks, bowling alleys, textile plants and other industrial floors.

Maple, Hard AKA: Rock maple, sugar maple Description: Hard, very heavy, straight-grained wood with fine texture. White sapwood with light red-brown heartwood. This wood is hard to work with because of its density. Common Use: Furniture, turning, butcher's blocks, flooring.

Soft Maple - Strong, stiff, staple. Softer, lighter in weight. Readily worked, holds nails well. Glues, finishes satisfactorily. Used for: Furniture, Veneers, Unfinished Furniture, Interior Finishing, Cabinets, Novelties, Boxes, Crates, Ties, Pulpwood. Distilled to make acetic acid and wood alcohol.

Maple, Soft AKA: Red maple, silver maple Description: Straight-grained fine-textured wood. Not as strong as hard maple. Light creamy-brown in color. Common Use: Furniture, interior joinery, turning, plywood, flooring.

Maple especially abundant in the eastern U.S.A., is a very light-colored hardwood with a very even grain texture. Eastern maples are generally harder than western maples because of the colder winters and shorter growing seasons. Both are very durable and take any color of stain well.

Maple Because its pale color, maple is a hardwood which gives a modern look. Less porous than oak, it's an excellent choice for varnishing or painting.

maple blonde; soft grain USA

maple, curly blonde; soft grain, distinct flame USA

Maple (Sugar) Creamy, very hard (difficult to carve), finishes well Very hard Fine \$4.60
Common maple Hard Turning, woodcarving

Birdeyes Maple: Type: Hardwood Appearance: Straight to irregular grain, fine textured, intermitant small knots. Physical Props: Heavy, hard, strong and stiff with moderate shock resistance.

Rustic Maple: Type: Hardwood Appearance: Straight to irregular grain, fine texture, intermitant dark streaks and/or wormholes. Physical Props: Heavy, hard, strong and stiff with moderate shock resistance.

Maple: Type: Hardwood Appearance: Straight close grain with a fine uniform texture. Nearly while/pale yellow appearance. Physical Props: Heavy, hard, strong and stiff with moderate shock resistance.

Maple - Medium density, moderately heavy, hard, and strong hardwood with a close, fine grain. Pale pinkish-brown to almost white. Uniform color and takes stains and finishes evenly. the second most abundant species of hardwood tree. Apple cider press
Cremation urns Wood flooring Kitchen wares Square table

Mulberry (*Morus citrifolia*) Medium density hardwood with a closed, straight grain. Color is a bright yellow sapwood with a light tan heart wood. Color does tend to diminish to brown with exposure to sunlight.

Myrtle (*Myrtus communis*) Medium density hardwood with closed, straight grain. Color ranges from tan to dark brown. Grain lines are very distinct in color.
Myrtlewood/Baywood/Pepperwood/California Laurel - Dense hardwood in the Laurel family. Colors vary from yellow, red, brown, silver, gray and black. If figured, it will be burl, fiddleback, curl or wavy grain. This tree grows only in the Sierra Nevada and on the coasts of Southern Oregon and California. Built-in seating Cremation urns

Oak (*Quercus alba*) Medium density hardwood with closed, straight grain. Very little difference between the sapwood and heartwood. Color ranges from light tan to light brown.

Oak: Strong with good bending qualities. Is durable and finishes well and resists moisture absorption. Used for furniture, trimming, boat framing, desks and flooring.

Red Oak - Very heavy, hard and stiff. High wear and shock resistance. Ring porous --- one can blow through wood endwise. Pores grow smaller from spring to summer wood. Used for: Very heavy, hard and strong. Ring porous. Abrupt variation in pore size from springwood to distinctly smaller in summerwood. Extra care required in seasoning.

Oak, Red AKA: American red oak Description: Straight-grained, with coarse texture. Pink-red in color. Common Use: Furniture, interior joinery, flooring.

White Oak - Fine Furniture, Unfinished Furniture, Flooring, Subflooring, Interior Trim, Cabinets, Handles, Boxes, Farm Implements, Boats, Ships, Barrels, Kegs, Casks. Used for: Fine Furniture, Unfinished Furniture, Flooring, Subflooring, Interior Trim, Cabinets, Handles, Boxes, Farm Implements, Boats, Ships, Barrels, Kegs, Casks.

oak, red golden to red;distinct grain USA

oak, red, curly golden to red; distinct curvy grain USA

oak, red, quarter-sawn golden to red; distinct ray pattern USA

Oak, White AKA: American white oak Description: Straight-grained with medium-coarse texture. Similar to European oak in appearance, but more variable in color.

Common Use: Construction, flooring, plywood, interior joinery.

oak, white greenish gold; distinct grain USA

Oak (White) Light yellowish brown, very hard when kiln dried (difficult to carve), finishes well Very hard Course

Oak: Type: Hardwood Appearance: Straight grained with a coarse texture and prominent rays. Light reddish tan appearance. Physical Props: Hard, stiff and strong with moderate stability. Multipurpose wood.

Oak, European AKA: English, French, etc Description: Coarse, straight-grained wood. Pale brown in color. Common Use: Furniture, joinery, external woodwork, carving, boatbuilding.

Oak is the wood most commonly used for ready-to-finish furniture. It is a very hard, open-grain wood that comes in red or white varieties. Red oak, which has a pinkish cast, is the more popular of the two. White oak has a slight greenish cast. Both woods stain well in any color.

Oak A very sturdy prestigious hardwood. Because of its unique grain and consistent hue, oak gives an impression of warmth. A transparent varnish enhances its natural golden color. It's excellent for staining, but difficult to paint because of its porous texture. Oak Hard Furniture, parquet floors, barrels, boat building

Knotty Oak: Type: Hardwood Appearance: Straight close grain with a coarse texture and prominent rays. Light reddish tan appearance. Physical Props: Heavy, hard, strong and stiff with moderate stability. Multipurpose wood.

Oak, Cork

Olive The olive tree belongs to the same family of trees as the ash, lilac and privet. Olive trees do have one quite specific requirement, however: they will only grow in the Mediterranean climate zone. Three-quarters of the world's olive trees are grown in Europe. The olive tree grows slowly, but can live for a very long time. Hundred-year-old trees are a common sight. The olive tree is an unmissable feature of the Mediterranean landscape. The trunk and branches of the olive tree give a hard, smooth wood of varied colours. Craftsmen and women who specialise in wood-turning use a lot of olive wood. The true olive (*Olea europaea*) is the source of the fruit also called olive and of olive oil; it is the most commercially important member of the family. The olive tree, a small evergreen, has been cultivated since the beginning of historical times in its native Asia Minor. Olive wood, hard and close-grained, is used for cabinetwork and furniture. Olivewood: (*Olea europaea*) Yellowish brown with dark brown streaks. Hard & heavy. Grain is straight to wavy, very fine texture. This is an expensive but very beautiful wood. Machines well and takes a fine finish. Mediterranean Olive wood, with light and dark grains, is popular for small decorative items, while the olive branch persists as a symbol of peace.

Padauk, African (*Pterocarpus soyauxii*) Bright orange colored wood with close open grain. Although available in 12-15 inch wide boards, it is generally limited to accenting other woods. Polishes nicely but color turns to a brown tone if left in daylight. padauk deep red Africa

Parawood from the Far East, is used for most furniture made in that part of the world. The wood is as hard as maple or ash and takes a very nice, even stain. It is yellow in color, with a grain similar to mahogany.

Pau Ferua (*Balfourodendron riedelianum*) Medium density hardwood with closed, straight grain. Sapwood ranges from pale yellow to tan, heartwood ranges from dark reddish brown to dark brown. Grain lines are very distinct in color.

Pearwood (*Pyrus communis*) Very minute pores and vessel lines account for an unusual uniformity and a very fine, smooth texture. Sapwood is pale yellow-apricot, and heartwood varies from flesh tone to pale pinkish-brown.

Paloba Rosa (*Aspidosperma peloba*) Color is a creamy yellow at first cutting which gradually changes to pink with darker streaks of red. It is a very dense wood with a smooth texture.

Pine - soft

Pine: It has uniform texture, works easy and finishes well. It resists shrinkage, swelling and warping. Used in house construction, paneling and trim. Also used for furniture, molding and boxes.

Pine: This long-needled tree also has wood that is very popular in deck construction. Pine varies from very soft wood, as with the white pine, to very hard wood, as in the long leaf pine. Usually pressure treated for deck construction, pine is very versatile, cheaper than cedar or redwood, and dependable. Depending on personal preference, pine works well with any color sealer. As with cedar, there are natural colors that can enhance the natural grain and color of the wood.

Pine AKA: Parana pine, hoop pine, ponderosa pine, sugar pine, western white pine, white pine. Description: There are too many strains of pine to document here and you are unlikely to get much of a choice at a local lumber yard. Basically, pine is a soft, pale yellow to reddish brown color, usually with a straight grain and medium texture.

Common Use: Doors, furniture, turning.

Pine a softwood, comes in many varieties from various parts of the world. In the U.S.A., eastern white pine, ponderosa pine, and sugar pine are some of the varieties used to make furniture. All have yellow coloring with brown knots and are excellent for staining. With some stains, a conditioner helps prepare the wood to achieve a more even look.

Radiata Pine is a plantation-grown wood from South America that is harder than other pines and has fewer knots. This variety of pine has a beautiful grain pattern and takes stain well.

Knotty pine A light-colored softwood with a rustic, traditional appearance. Its large dimensions make staircases look impressive. Less resistant to wear than any hardwood. It's also excellent for outdoor use with a protective sealant.

Scots pine Soft Windows, doors, railway sleepers

Knotty Pine: Type: Softwood Appearance: Straight grained with a medium coarse texture. Prominent dark resin lines, sound knots. Physical Props: Light and soft, paints and finishes well.

Pine (Sugar, White) Aromatic, cream colored, soft, good for whittling, the prominent growth rings may be difficult to cut through Easy Medium \$1.95

Pink Ivory (*Rhamniis zeyheri*) Very dense hardwood with figured grain and interlocking texture. Color is very pale pink to a dark pinkish red. It is also priced similar to real Ivory as demand is far above supply.

Plane, European AKA: English, French, etc Description: Straight-grained wood with fine to medium texture. Light red-brown heartwood. Similar, but darker than, American Sycamore. Common Use: Furniture, joinery, turning.

Poplar (*Salicaccae tremula*) Grain varies from cream-white through dark brown and green. Generally straight grained and rather woolly, but with a fine, even texture. Yellow Poplar - Diffuse, porous, lightweight. Moderately stiff, relatively stable, easily worked. Used for: Furniture, Veneer Cores, Paneling, Cabinets, Pattern Stock, Weatherboard, Siding, Interior Trim --- window sashes door frames, woodwork, molding. Yellow Poplar AKA: Whitewood, tulip poplar Description: A fairly soft and lightweight wood, with straight grain and fine texture. Pale olive-green to brown heartwood, but with colored streaks. Common Use: Joinery, furniture, carving, light construction. Lombardy poplar Soft Plywood, cellulose White poplar Soft Cellulose, woodturning

Purpleheart (*Peltogyne paniculata*) A dense hard wood with tight, fairly straight grain with moderate to coarse texture. Bright purple when cut, darkens to brownish purple with exposure. Turns and finishes well.

Purpleheart AKA: Amaranth Description: Uniform, fine to medium texture. Usually straight-grained. Purple color, darkening to a rich brown due to oxidation. Common Use: Construction work, boatbuilding, turning, furniture.

Pussy Willow (*Salix discolor*) Grain varies from cream-white through reddish-brown. As this grows as a shrub, grain is erratic and rather woolly, but with a fine, even texture.

Redheart (*Erythroxyylon corymbosa*) Pale to dark red that will deepen in color with age. Grain is straight and tight. Turns well but has tendency to burn. Fresh cut material has a bright red look that darkens with exposure.

Redwood: Light in weight, durable and easy to work. Has a natural resistance to decay. Used in outdoor furniture, fencing, house siding, interior finishing, veneering and paneling.

Redwood: Used frequently in timber construction, redwood is (as the name suggests) a reddish wood. Outside of the color, redwood is very similar to cedar.

Redwood, European AKA: Scots Pine Description: A light-colored wood with yellow-brown to red-brown heartwood and white-yellow sapwood. Common Use: Furniture, joinery, construction.

Rosewood, Bolivian (*Dalbergia stevensonii*) A dense hardwood, pinkish brown to salmon red with dark grain lines. Grain can be anywhere from straight to highly figured. Rosewood: Very hard and has a dark reddish brown color. It is fragrant and close grained. It is hard to work and takes high polish. Used in musical instruments, piano cases, tool handles, art projects, veneers and furniture.

Rosewood, Brazilian AKA: Rio Rosewood, Bahia Rosewood Description: Hard and heavy. Medium texture with straight grain. Highly figured with brown, violet-brown to black color. Common Use: Furniture, joinery, turning, knife handles, carving.

Rosewood, Indian AKA: Bombay Rosewood Description: Heavy, moderately coarse and uniform texture. Interlocked grain. Golden brown to purple-brown with streaks of dark purple or black. Common Use: Furniture, shop fittings, musical instruments, turning sapele reddish brown; beautiful highlights Africa

Sassafras (*Sassafras albidum*) Medium density hardwood with closed, straight grain. Very little difference between the sapwood and heartwood. Color ranges from light blonde to light brown.

Snakewood (*Piratinera guianensis*) Irregular grained and fine texture. Name comes from dark red to reddish-brown 'snakeskin' appearance. It has irregular black striped markings and dark spots caused by gummy deposits that fill the cell cavities.

Spruce: Strong and hard. Finishes well and has low resistance to decay. Has moderate shrinkage and light in weight. Used for masts and spars for ships, aircraft, crates, boxes, general millwork and ladders.

Norway spruce Soft Construction timber. Bark used for tanning

Sycamore AKA: American plane, buttonwood Description: Fine, even texture, usually with straight grain. Pale brown in color. Not to be confused with European Sycamore. Common Use: Furniture, butcher's blocks joinery

Sycamore, European AKA: Sycamore plane, great maple Description: This is really a maple, not a sycamore. Fine, even texture. Straight-grained. White to yellowish-white in color. Common Use: Turning, furniture, kitchen utensils.

Sycamore Hard Furniture, veneers, musical instruments

Teak: Hard and durable and resistant to moisture and rot. It resists warping, cracking and decay. Best used in fine furniture, paneling, shipbuilding, doors, window framing, flooring and general construction.

Teak AKA: Kyun sagwan, teku Description: Coarse, uneven texture with oily feel to it. Straight or wavy grain, depending on the origin. Common Use: Interior and exterior joinery, boatbuilding, garden furniture, turning.

Teak Hard Furniture

Tulip (*Liriodendron tulipifera*) Medium density hardwood with straight grain and even texture. Sapwood is creamy-white, heartwood varies from yellow-brown to pale olive-brown, streaked with olive-green, dark grey, black, pinkish-brown, red, and sometimes steel blue.

Tulipwood AKA: Pinkwood Description: Dense, hard wood with fine to medium texture. Usually has irregular grain. Pink-yellow color with pink to violet-red stripes. Common Use: Turning, kitchen utensils, inlay

Tzalam (*Lysiloma bahamensis*) Medium density wood with fine straight open grain. The color ranges from light brown to chocolate with streaks of red/grey.

Walnut (*Juglans nigra*) A medium density hardwood. Sapwood is very light in color, blonde to tan. Heartwood ranges from light brown to blackish brown. Grain lines are very distinctive.

Walnut: Fine textured, strong, easy to work with and resists shrinking and warping and finishes well. Best used for gunstocks, solid and veneered furniture, novelties, cabinetry and wall paneling.

Walnut - Heavy, hard, strong, stiff, stable and has good shock resistance. Easily worked with hand or machine tools, readily carved, turned, glued and polished. Used for: High Quality Furniture, Fine Veneers, Custom Cabinets and Paneling. Gunstocks, Interior Trim, Special Flooring, Woodwork.

Walnut, Black AKA: American walnut Description: A strong wood with a rather coarse texture. Usually straight-grained, but not always. Color is a rich brown to purple-black. Common Use: Furniture, gunstocks, interior joinery, carving, turning.

Walnut, European AKA: English, French, etc. Description: Coarse texture with straight to wavy grain. Color is gray-brown with darker streaks. Common Use: Furniture, gunstocks, turning, carving.

walnut, American dark brown; soft grain USA

walnut, Peruvian very dark brown; indistinct grain South America

Walnut (Black) Dark brown, excellent for natural-finish sculpture, finishes well Hard Medium

Walnut, N. American Description: N. American Walnut is America's most prized hardwood and is used extensively in fine furniture. Color Range & Color Change: Color Range: N. American Walnut has a wide range of color variability from a contrasting cream colored sapwood to tan to medium brown to chocolate brown heartwood. WFI offers a select quartersawn grade which does not include any of the cream colored sapwood. Color Change: N. American Walnut exhibits a medium high degree of color change with the dark brown heartwood lightening over time to a more golden brown with the muting of the color variation found when freshly milled. N. American Walnut Photo Page Hardness: N. American Walnut is only 80% as hard as red oak (1010 on the Janka scale vs. 1260 for red oak).

Claro Black Walnut - Strong hardwood, usually straight-grained, but not always. Colors vary from reds to golds, mixed with tans, grays, purples, browns, and black. Cremation urns Napkin rings

Wenge (*Milletia laurentii*) A hard, heavy, coarse grained wood with a generally straight grain. Color is characterized by alternating dark and light brown bands producing a very distinctive and decorative appearance.

WENGE *Milletia laurentii* Also called Pallissandre and Dikela. Colour: dark brown to black with fine black veining. Hard and heavy, 60 lbs/cu.ft. Coarse texture but works easily. Congo Brazzaville and Zaire.

wenge dark brown to black; distinct striped grain Africa

Willow (*Salix alba*) Medium density hardwood with closed, straight grain. Sapwood is white, heartwood is creamy-white with a pinkish tinge.

Weeping willow Soft Cricket bats, wooden shoes, boats, cellulose. Young shoots used for baskets.

Yew, Pacific (*Taxus baccata*) A softwood with an open grain structure, related to the cone-bearing evergreen species. Color is a light reddish brown that darkens with age. Yew AKA: European yew Description: A strong, hard softwood (excuse the oxymoron). It has an orange-red heartwood and light-colored sapwood. Common Use: Furniture, turning, joinery.

Zebrawood (*Microberlinia brazzavillensis*) Grain is interlocked or wavy and texture is coarse. Heartwood has a light golden-yellow background, with narrow regular and parallel veining of dark brown to almost black.

ZEBRAWOOD *Microberlinia brazzavillensis* Also called Zebrano and Zingana. Colour: golden brown with pronounced dark brown streaks. High lustre with somewhat coarse texture. Moderately hard and heavy, 45 - 55 lbs/cu.ft. West Africa.

Ziricote (*Cordia dodecandra*) Very hard, heavy and dense material with tight grain. Color is dark brownish black to black with streaks of black. Machines well, but susceptible to burning.

Care -

Unlacquered wood requires regular, simple care to prevent warping and splitting. Rub on generous amounts of food-grade mineral oil (warmed to room temperature) and allow to soak in. Repeat the process after about 6-8 hours, and repeatedly, if necessary, until the oil is no longer being absorbed. Then wipe off any excess that remains on the surface.

Mineral Oil -

Any of various light hydrocarbon oils, especially a distillate of petroleum.

A refined distillate of petroleum, used as a laxative.

For food purposes usually liquid petrolatum or liquid paraffin are employed

Chemically inert

White Mineral oil is derived from crude oil, however its high degree of refinement dictates the properties it takes on.

White mineral oil, often referred to as white oil, is crystal clear, odorless and can be found in a variety of different viscosities.

White oil is either derived from one of two of base oils, naphthenic or paraffinic. Depending on the end application dictates which base oil, is to be used. Naphthenic base oils produce white oils which an application requires high specific gravity and a high heat resistance, an example of an application would be lubricants. Whereas paraffinic base oils are used when the end white oil is used to produce lighter viscosity and lower heat resistance, such as in applications included in cosmetics.

White mineral oil is classified into two categories, food grade and technical grade. White oils are tested by regulatory agencies, such as the United States Federal Drug Administration (FDA), The United States Pharmacopoeia (USP) and the National Formulary. White oils meeting their classifications are labeled food grade or technical grade.

Food grade white oil meets specifications set forth by the FDA, 21 CFR 172.878 and CFR 178.3620(a) these are approved for direct and indirect food contact.

FDA

For direct use in food, 21 CFR 172.878

For applications where incidental food contact may occur, 21 CFR 178.3570

Some are Kosher and Pareve

Wood Finishing instructions to create a hard finish on your wooden counter or butcher block. Do not use knives or other cutting utensils directly on wood with hard finishes.

The best food-safe lacquer to use is shellac. In flake form, it is free of water, wax and preservatives, and can easily be mixed as needed. It is easy to apply, protects well against moisture, and makes a wonderful shiny surface. Small blemishes can be easily repaired, however heat spots and alcohol spills are damaging and require work to fix.

The best food-safe varnish is natural tung oil. It is easy to apply, protects well against moisture, blemishes can be easily repaired, and lasts much longer than shellac. It takes more coats than shellac, and more work to get a shiny surface, a longer drying time, and is more expensive.

Other food-safe lacquers and varnishes are available commercially, and should be matched to the type of food and degree of food preparation to be done on the surface area. Read the labels and follow the manufacturer's instructions for best results.

Compiled from many different sources over many years; references no longer available.

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