

Appendix I: Wood Characteristics

Natural Characteristics Of Wood

Solid Wood vs. All Wood

"Solid wood" means that each exposed part is made of genuine hardwood lumber and nothing else. For large surfaces, strips or boards are bonded with stronger-than-wood glue and other wood joinery techniques.

In addition, artificial laminate surfaces of plastic, foil or paper often are printed with photographs of wood grain patterns and bonded to composite board. Remember the terms "oak, maple and cherry finish" may simply refer to the color or the photographic reproduction of the wood's grain-it does not necessarily mean it is the authentic, natural hardwood.

If you're not sure whether the item is solid hardwood or an imitation, examine the construction.

Solid hardwood furniture and cabinetry consist of many pieces of lumber glued together edge-to-edge or end-to-end with continuous glue lines. Put your finger on a glue line and trace it across the top surface, over the edge, and to the underside. If the line disappears, chances are it's not solid hardwood.

Caring for Hardwood Cabinets

Because cabinetry finishes vary widely, always read and save manufacturer's maintenance instructions. For added safety, test a new cleaning solution in an inconspicuous area to make sure it causes no damage. Following are some general tips and cautions:

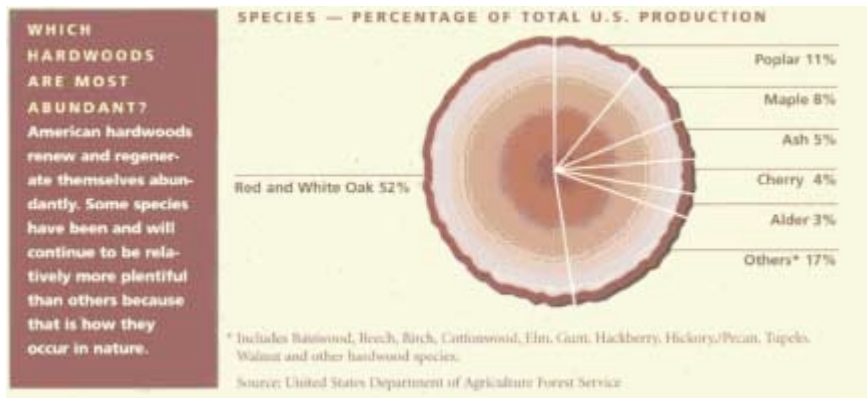
DUST cabinet face panels and drawers regularly with a soft cloth or feather duster.

CLEAN as needed with a mild non alkaline soap like dishwashing liquid and water. Wipe away grease, spills or hand prints with a damp sponge or cloth. Always dry cabinets immediately with a soft cloth and buff lightly, following the direction of the grain. Products like "End Dust" or "Old English" can also be used to enhance the beauty of your cabinets.

BUTCHER BLOCK countertop cutting boards should be washed after each use with warm water and mild detergent, then wiped dry immediately. Try to remove stains by soaking with lemon juice for a few seconds, then wiping dry. If that doesn't work, use scouring powder or steel wool. Most manufacturers recommend occasional recoating of your butcher block with tung oil. It is not recommended to prepare meats on wood butcher blocks.

COUNTER TOPS - Never use abrasives to clean Plastic/Laminate countertops. This will scratch

the surface and cannot be repaired. They should be cleaned with a non-abrasive cleaner, such as "Windex".



Advantages of Solid Hardwood

Solid hardwoods, as building and furnishing materials, go against the grain of a mass-produced, throw-away age. Although every hardwood board will predictably share the characteristics of its species such as - oak, ash, alder, maple, cherry, hickory and poplar- each board displays a face which is uniquely its own, having been formed over the long lifetime of the individual tree from which it came.

Solid hardwood furniture, flooring, cabinetry and woodwork offer the potential for many generations of hard use. Their beauty is not skin-deep. They can live with nicks and scratches, are easily repaired and refinished, and their value is lasting.

When you're choosing for a lifetime - and maybe two or three -- you should choose wisely. Solid hardwoods are genuine, not imitations. They are natural, not synthetic. They are classic, not artificial.

What may look at first like solid hardwood flooring, cabinetry, millwork or flooring may be something else. It pays to ask questions and take a hard look at materials. Aside from aesthetic considerations, substitutes can't compare to solid hardwoods when it comes to holding nails and screws and withstanding the stresses, loads, shocks and abrasions of daily life.

Should I Worry about Shrinking and Swelling?

Expansion and contraction of wood is perfectly normal during changes in the weather. Wood is a natural material that seeks to be in balance with its surroundings. Hardwoods destined for use in home furnishings are carefully kiln-dried for that purpose, and they will take on or give off moisture with extreme changes in relative humidity. When the air is exceptionally warm and humid, solid hardwoods will absorb moisture and expand. Likewise, with much cooler, drier air, the wood will give off moisture and contract. This is completely natural.

Here are a few tips to help you be weather-wise:

Maintain relative humidity of at least 25 to 35 percent; i.e., use a humidifier in winter and an air conditioner in summer.

When storing table leaves, keep them as close to the table as possible. Keep them in an upstairs closet rather than a damp basement so that the table and leaves are adjusting to the same humidity conditions.

Expansion of wood caused by an increase in moisture content

| ← 12 inch length of wood at 5% moisture content... → | ... and at 14% → |
|--|------------------|
| Mahogany | 12.12" |
| White Pine | 12.18" |
| Cherry | 12.20" |
| Soft Maple | 12.22" |
| Red Oak | 12.26" |
| Red Birch | 12.27" |
| White Birch | 12.27" |
| Hard Maple | 12.28" |
| White Ash | 12.28" |
| Walnut | 12.28" |
| White Oak | 12.30" |
| Hickory | 12.32" |

Color and Grain Variations

Why doesn't what you bought look like the sample in the showroom?

Unlike factory-made, artificial materials, each hardwood board has a unique life story. During the approximately 60 years it takes for a hardwood to mature, each tree develops a one-of-a-kind grain pattern and texture. Grain patterns result from the tree's growth rings--one ring for every year in the forest.

Knots are character marks, telling the story of tree limbs that grew and fell to the forest floor as the tree matured.

Even boards from the same hardwood tree will show significant variation in color. For instance, "younger" wood closer to the bark (sapwood) will be lighter than that which comes from the central portion. You also can see the effects of the minerals and other essential elements that the trees absorbed as they grew.

No two pieces of hardwood are alike. Because of this, your particular item looks like no other in the world...including those in the showroom. However, rest assured that none of the natural

markings that characterize hardwood floors, furniture, woodwork, and cabinetry affect their durability or structural integrity.

Hardwood Details Make a House a Home

Is your living room rarely lived in? Is the dining room used once a year? Is your big house less than a home? If so, you're not alone.

"An awful lot of people are building a whole lot more space than they can use," says architect and author Sarah Susanka. "The space that they do use ends up being very bland. It has no personality."

Susanka believes in investing more in good design, fine materials, details and craftsmanship and less on the kind of cavernous, impersonal space characteristic of the "McMansions" sprouting up in suburbs.

"What defines the character of a house are the details, such as a beautiful stair railing, well-crafted moldings around windows and doors, and useful, finely tailored built-ins," she says.

Wood Lends Natural Character

It's no surprise that many of the homes designed by Susanka feature lots of hardwood detailing.

"I'm a sucker for wood," Susanka says. "I love the different grains. Wood can be used for visual accents that shape, define and decorate the room. Wood lends an organic personality to the house that you don't get from a man-made or manufactured product. It gives us a sense of connection with where it came from."

Susanka's book, "The Not So Big House," was a best-seller, and her latest book, "Creating the Not So Big House," offers plenty of tips and ideas for builders and remodelers. For more information, visit her Web site at <http://www.entsobighouse.com>.

Susanka doesn't advocate that everyone live in a small house. What she suggests is that when building a new home or remodeling an existing one, you evaluate what really makes you feel at home. Put your money toward what you like rather than settling for sheer size and volume.

"My question is, 'Do we want a bigger house or a better house?'"

An Arts and Crafts Style Home

When artist Skip Liepke enlarged his 1915 home in Minneapolis, he included many details of what he loves most: The Arts and Crafts Prairie School of design. The entertainment room includes built-in seating and pull-out trays made of quarter-sawn oak. The dining room has birch paneling, and the kitchen features stained glass windows and mahogany woodwork.

"Wood is probably the most natural element you can put in a house," he says. "There is a warmth in the look and touch of wood that you can't get from any other material." "When people talk fondly about the house they grew up in, they never talk about how big it was," he says. "They talk about a window seat. They talk about an upstairs bedroom tucked under the rafters with a sloped ceiling. They remember the character of the place."

Want To Make Your House Homier?

Consider these ideas as you evaluate your use of space:

A formal dining room that is rarely used could be transformed into a home office or a more casual space for everyday eating.

Have a bookworm in the house? Consider a reading nook with built-in bookcases made of hardwood or a window seat for reading.

Love wine? Why not build a mini "wine cellar" with built-in racks?

No place to put stuff? Built-in cabinets and drawers are not just for the kitchen. Consider them for the mud room, laundry room, nursery, family room or office.

Overwhelmed by the mail? Consider setting up a mail sorting area with cubby holes for each member of the family in the kitchen or near the entrance where mail is retrieved.

Hate the sight of a blank television screen? One solution is a built-in cabinet with storage space for tapes and other items.

Don't forget the details that add so much. Hardwood floors, moulding, paneling and mantels are at home in virtually any decorating style.

What is meant by Solid Wood?

Solid wood means that all exposed parts of the furniture are made of solid board, either softwood or hardwood lumber. No veneers are used. Solid woods can be repaired, sanded, or refinished. The majority of unfinished furniture is made of solid wood.

How do Hardwoods and Softwoods differ?

They look different. Some are smooth, some have bold grain and some have knots or bird eyes. They finish differently. The density of the various woods change the depth and tone of the color. The region where the furniture is made, the style, and the historical period of the piece, determines the wood used.

Is Veneer less desirable than solid wood?

Veneer has a different look than solid wood, but is not necessarily better or worse in quality. Veneer is a thin layer of wood applied in sheets over underlying layers of plywood. Originally developed to be an art form, veneer can be cut as thin as a dime and in intricate patterns. Uniform graining can be achieved, unlike the more random graining of solid wood.

When is plywood a good idea?

When strength and stability are needed. Plywood is made of thin layers of solid wood glued over each other with grains running at 90-degree angles to produce a strong core. It is used to provide maximum stability on the sides of desks, entertainment centers and other units where solid woods would crack and warp. A veneer is often glued on top and sides for an even and attractive appearance. Some alternatives are hardwood veneers--thin slices of wood bonded to composite boards or plywood. This type of construction is sometimes described as "all wood."

Does price reflect quality?

Yes. Just as with other commodities, the price of a piece of furniture increases when its quality improves. Higher prices reflect refinements in grades of wood and better construction features. The benefits to you: