

SANDING & FINISHING GLOSSARY

Abrasives Natural and synthetic materials in fine granular form incorporated in buffing compounds and attached to cloth or paper. Abrasives are generally used in grades of coarse to fine and may be identified by a numerical system (paper- and cloth-backed abrasives). In wood flooring applications, abrasives can also refer to screens or pads. Not all abrasives are identified by number.

Abrasion Resistance That property of a surface that resists being worn away by a rubbing or friction process. Abrasion resistance isn't necessarily related to hardness, as believed by some, but is more closely comparable to, or can be correlated with, toughness.

Acid Chemical substance rated below 7 on the PH scale.

Acrylic Resin A synthetic resin, white in color, very transparent, and resistant to discoloration, moisture, alcohol acids, alkalis and mineral oils. It is usually made by polymerization of acrylic acid and methacrylic acid.

Acrylic/Wood The generic name for wood-plastic composites using wood impregnated with acrylic monomers and polymerized within the wood cells by gamma irradiation. Some versions are cured by heat radiation.

Adhesion The property that causes one material to stick to another. Adhesion is affected by the condition of the surface to be coated and by the closeness of contact, as well as by the molecular forces of the unlike substances. Thus, the surface should allow a certain amount of penetration, should be chemically clean and not too smooth, hard or nonporous for good adhesion.

Adsorption A type of adhesion that occurs at the surface of a solid or liquid in contact with another medium, thus allowing an increased number of molecules of the gas or liquid to become attached to the surface of the solid at the point of contact.

Alkalinity A measurement of an alkaline rated above 7 on the PH scale.

Alligatoring The appearance of paint, varnish or lacquer film that is cracked into large segments, resembling the hide of an alligator. It is caused by heavy coats, recoating before the bottom coat is completely dry, the use of thinners that evaporate too quickly, or by a less elastic material applied over a more elastic one.

Amber A yellowish color change from either the wood or finish. See Color Change.

Aniline Colors Colors made from aniline oils or coal tar derivatives, and used in the manufacture of wood stains. Aniline dyes are made in different grades to be soluble in water, alcohol or hydrocarbons, and accordingly are called water colors, spirit colors and oil colors, respectively.

Aniline Dyes Whereas pigmented stains contain small particles of color that remain on the surface of the wood, aniline dyes penetrate the wood fibers.

Bleeding When the color of a stain or other coating material works up into succeeding coats, imparting to them a certain amount of color, it is said to bleed. A non-bleeding color is one that isn't soluble in materials used over it.

Blistering The formation of bubbles or pimples on the surface of finished work. It is caused by exposure to excessive heat, grease or other volatile material under the finish, by moisture in the

wood or by the too frequent application of coats. Anything that causes a gas or vapor to form under the film may cause blistering.

Blushing The formation of a white or grayish cast in a spirit varnish, shellac or lacquer film during the drying period. It is caused by the partial or total precipitation of the solid ingredient as a result of condensed moisture in the film. This may be caused by excessive humidity or by use of an improper solvent.

Body Often used to describe the consistency of viscosity of a finishing material. It's also used to describe the fullness or thickness of film on the work.

Boiling Point The temperature at which the vapor pressure of a liquid equals the air pressure, or the temperature at which a liquid begins to boil.

Bond The adhesion between two dissimilar materials.

Brushability The ease with which a material can be applied with a brush under practical conditions.

Brush Marks Marks of the brush that remain in the dried film of a finishing material. They are caused by working the material after its solvents have evaporated to the point that the flowing power has been lost or by defects in formulation that prevent the material from leveling out after it has been brushed.

Bubbling The appearance of bubbles in the film of finish while a finishing material is being applied. It is caused by any condition that causes air, vapors or gases to be trapped in the film while it's soft, but after it has hardened sufficiently to prevent the gas from escaping.

Build Coat A finishing material, usually of a transparent nature, used over the sealer or color coats and under the finishing coats to increase the fullness of the finished work.

Burnish – In wood flooring applications, the term is generally used to describe the process by which wax is applied as a top coat or the process recommended by some manufacturers to apply stain. In either case, a commercial rotary buffer is used for the application. Some stain manufacturers recommend using a buffer with a pad to help the stain penetrate into the wood. Stain should not be applied with the burnishing method unless recommended by the stain manufacturer. Steel wool is also sometimes used for burnishing. Burnishing can also refer to the process of using a fine-grit abrasive for the final cut on a floor to reduce grain raise.

Chatter Marks Slight indentations causing a ripple effect on the surface of a wood floor. They are usually caused by sanding machines that have out-of-balance drums, bad drive belts or foreign objects stuck to the wheels. The marks are most noticeable on gloss finishes, in direct-light areas or at eye level.

Checking Similar to alligating, except that the finish is broken into smaller segments. Crowfoot checking is the name given to the defect when the breaks in the film form a definite three-prong pattern with the breaks running outward from a central point of intersection. When the checks are generally arranged in parallel lines, the defect is known as line checking. Irregular checks without a definite pattern are known as irregular checking.

Chipping The condition that occurs when a dried film of finishing material separates from the underneath surface in the form of flakes or chips. It is usually caused by insufficient elasticity or improper adhesion to the base material.

Conversion Varnish Because of their national origin, conversion varnish sealers are often referred to as Swedish finishes. Conversion varnish sealers are two-component, acid-curing, alcohol-based sealers.

Crazing The appearance of minute, interlacing cracks or checks on the surface of a dried film of finishing material.

Cross Pull A condition occurring at an end-joint with the ends of flooring strips pulled in opposite directions.

Crowfooting A species of crystallization (See Checking) wherein the lines come together at a central point.

Crowning A convex or crowned condition or appearance of individual strips with the center of the strip higher than the edges. The opposite of cupping.

Cupping A concave or dished appearance of individual strips with the edges raised above the center. The opposite of crowning.

Cure To change the properties of a product by chemical action as opposed to drying when the product has reached its optimum state.

Cut To sand a floor. As a noun, cut refers to one pass over an area of floor with sanding equipment. Usually, a mechanic will make two or more cuts with progressively finer grits of sandpaper.

Dispersed In reference to finishing materials, finely divided or colloidal in nature.

Distressed A heavy artificial texture in which the floor has been scraped, scratched or gouged to give it a time-worn antique look. A common method of distressing is wire brushing.

Drier A catalytic material that improves the drying or hardening properties of oils or varnishes when added in small amounts. They are usually organic salts of lead, cobalt, manganese, zinc and iron, such as naphthenates, resinates and linoleates.

Drying The act of changing from a liquid film to a solid film by the evaporation of solvents, oxidation, polymerization or by a combination of these phenomena.

Dry Tack-Free The stage of solidification of a film of finishing material when it doesn't feel sticky or tacky when a finger is drawn lightly across it in a quick continuous motion.

Dry to Sand The stage of solidification of an applied film of finishing material when it can be sanded without undue softening, sticking or clogging of the sandpaper.

Dry to Touch The stage of drying of a film of finishing material when it has solidified sufficiently that it can be touched lightly without any of the finishing material adhering to the fingers.

Durability The ability of the wood species or finish to withstand the conditions or destructive agents with which it comes in contact in actual usage, without an appreciable change in appearance or other important properties.

Dust Small particles of solid matter. Also, a grading or size of natural resin.

Dust-Free That stage of solidification of an applied film of finishing material when dust that settles on the coated surface won't penetrate or stick to the film.

Fading The loss of color due to exposure to light, heat or other destructive agents.

Feather Edge The tapering of the edge of a film of dried material either by the method of application, sanding or rubbing the dried film, resulting in a gradual progression of the film thickness from little or no material at the edge to a normal coating at the center.

Filler In woodworking, any substance used to fill the holes and irregularities in planed or sanded surfaces to decrease the porosity of the surface before applying finish coatings. Wood filler used for cracks, knotholes, worm holes, etc..., is often a commercial putty, plastic wood or other material mixed to the consistency of putty. A wood filler also may be mixed on the job using sander dust from the final sanding, or other suitable material, mixed with sealer or finish.

Fire Resistance The property of a material or assembly to withstand fire or given protection from it. Certain species naturally provide greater fire resistance than others. Classes are I-II-III or A-B-C with Class I or A being the most fire resistant.

Fire Retardant A chemical or preparation of chemicals used to reduce flammability or to retard the spread of a fire over a surface.

Flame Spread The propagation of a flame away from the source of ignition across the surface of a liquid or solid, or through the volume of a gaseous mixture. NOTE: Most wood species are Class C Flame Spread unless the wood floor has been treated and marked as to flame spread.

Flattening Agent A material added to a normally glossy coating to reduce luster and produce a flat appearance.

Flow The characteristic of a coating that allows it to level or spread into a smooth film of uniform thickness before hardening.

Gloss The luster, shininess or reflecting ability of a surface.

Glossing Up The increase of luster in a rubbed film through friction in use or the increase in luster of a flat varnish in the package through a decrease in the effect of a flattening agent.

Gloss Meter An instrument for measuring the luster or gloss of a finished surface.

Graininess The objectionable appearance of small, grain-like particles in a finishing material or in the dried film thereof.

Hard plate Hard-plating, discing and sand-plating are all names that refer to using a large paper disc on a hard-plate driver under a buffer/polisher. Typically the hard plate has a felt pad attached to the plate. The hard-plate method of sanding is used primarily on patterned floors, such as parquets, mixed media or other inlaid floors, to keep the floor flat prior to finishing. When using sandpaper on a hard plate, the flatness of the plate and disc of sandpaper keeps from dishing out the springwood or softer grain.

Hardness That property of the wood species or dried film of finishing material that causes it to withstand denting or being marked when pressure is exerted on its surface by an outside object or force.

High Solids A term used to denote the presence of a higher than average percentage of solid ingredients and thus a lower percentage of solvents.

Humidity The amount of water vapor in the air. See Relative Humidity.

Hygrometer An instrument for measuring the degree of humidity or relative humidity of the atmosphere.

Impact Test A test for determining the resistance to shattering of a dried film by dropping a weight onto the finish.

Incompatible Not capable of being mixed together without impairing the original properties of the materials being mixed. Mixing incompatible materials usually results in a separation of solid particles, cloudiness or turbidity.

Intensity The intensity of a color is its purity or degree of hue as seen by the eye.

Intumesce To expand with heat to provide a low-density film. The term is used in reference to certain fire-retardant coatings.

Lacquer A thin-bodied, quick-drying coating material that forms a hard film. Originally, it referred to solutions of shellac and other resins that dried by evaporation alone. Then the term was applied to Oriental products derived from the sap of certain trees in China, Burma and Japan. Still later, the term was applied to thin, hard-baking varnishes used for coating food cans made from tinfoil and similar metal articles. More recently, the term applied to mixtures of solutions of nitrocellulose, ethyl cellulose, and natural and synthetic resins that dry by evaporation alone.

Lap Used as a verb, lap means to lay or place one coat so its edge extends over and covers the edge of a previous coat, causing an increased thickness where the two coats are present, as compared to the single thickness on either side of the lap. As a noun, lap is that portion of a coat of finishing material that extends over the edge of and onto a previous coat.

Leveling The ability of a film to flow out free of ripples, pock marks, brush marks or other surface defects.

Milky Having the appearance of milk or showing some whiteness, as when water is mixed with varnish or when a dried transparent film starts to turn white from moisture.

Mineral Spirits A solvent product used as a thinner and/or cleaner.

Moisture-Cure Urethane A solvent-base polyurethane that dries by solvent evaporation and cures by a reaction of the polyurethane with atmospheric moisture. See Polyurethane.

Nonvolatile The portion of a material which doesn't evaporate at ordinary temperatures; the solid substances left behind after the volatiles have evaporated.

Odor That property of a substance which is perceptible by the sense of smell; the smell, scent or fragrance of a material.

Oil-Modified Urethane A solvent-base polyurethane that dries by solvent evaporation and cures by a reaction of the polyurethane with driers and air. See Polyurethane.

Peeling A defect in a dried film manifested by large pieces becoming detached from the under surface and coming loose in sheets or large flakes.

Penetrating hardening oil finish (Danish) An oil-based finish that penetrates into wood fibers and hardens inside. It can be colored. Very low gloss."

Penetrating Stains Stains that penetrate into the surface of the wood. They are usually made of dyes dissolved into liquids that easily penetrate the wood.

Petroleum Spirits Another name for mineral spirits.

pH Value The concentration of the hydrogen ion in a material. A pH value of 7 is considered neutral. Lower values are acidic; higher values are alkaline.

Pigment The fine, solid particles used for color or other properties in the manufacture of paint, enamel and stain.

Pigment Stains Stains that get their color primarily from pigments mixed with binder and volatile thinners.

Polyurethane A large molecule of chemically joined urethane units, having the capacity to solidify or "set" irreversible when acted upon by heat, radiation or chemical crosslinking or curing agents. See Urethane.

Prefinished Factory-finished flooring that only requires installation.

Puckering The crinkling, shriveling or wrinkling of a coat of finishing material upon drying.

Pure Free of adulteration.

Raised Grain A roughened or fuzzy condition of the face of the flooring in which the dense summerwood is raised above the softer springwood but not torn or separated.

Reduce To lower the viscosity of a material or to thin it by the addition of a solvent, thinner, varnish, oil, etc.

Refinish Sanding a previously finished floor to bare wood and applying new finish.

Relative Humidity Ratio of the amount of water vapor present in the air to that which the air would hold at saturation at the same temperature. It is usually considered on the basis of the weight of the vapor, but for accuracy should be considered on the basis of vapor pressures.

Retarder A slowly evaporating solvent that decreases the evaporation rate or slows up the drying of lacquers and similar materials.

Scratches Slight incisions, breaks, tears or indentations on the surface caused by abrasive friction.

Sealer Any finishing material that is applied with the primary purpose of stopping and absorption of succeeding coats.

Separation The breaking up or segregation of two or more integral parts of a mixture into its component parts. In a varnish, this may take the form of the resin becoming insoluble in the other ingredients. In a paint or enamel, it may mean that a clear liquid portion forms above the pigmented portion. In liquid, there may be a segregation of layers of component liquids.

Settling The separation of a pigment or other solid ingredient from a coating material upon standing.

Set to Touch See Dry to Touch.

Shade The degree to a color, as a dark green. Also, the act of changing the tone or degree of a color by adding small quantities of other colors to it.

Sheen The degree of luster of the dried film of a finishing material. It is usually used to describe the luster of rubbed surfaces or of flat-drying materials.

Shellac The resinous material secreted by an insect that feeds upon the twigs of certain trees in India. It is soluble in alcohol to form liquid shellac, which was once widely used as a sealer and finishing material for wood. Natural shellac contains wax and is not widely used as a top coating for wood flooring today. However, dewaxed shellac is becoming more common as a sealer for wood flooring.

Skin The film of oxidized or polymerized finishing material that forms on the surface while in a container or tank.

Spot Fill Method. To fill small areas on a wood floor where small gaps appear between boards. Compare with Trowel Fill Method.

Staining The act of changing the color of wood without disturbing the texture or markings, through the application of transparent or semitransparent liquids made from dyes, finely divided pigments or chemicals.

Surface The outside or exterior boundary of any substance. One is said to surface the work when it is rubbed or sanded to a smooth, level plane.

Surface Drying When a coating dries on top, but remains relatively soft on the bottom, it's said to surface dry.

Surface Tension The inherent molecular attraction in liquids that causes them to diminish their surface area and thereby exhibit properties resembling those of a stretched elastic membrane.

Swedish Finish See Conversion Varnish. The term is also sometimes used to refer to water-borne finishes, which -- like conversion varnishes -- originated in Sweden.

Tack-Free That condition when a film of finishing material has reached the point that the surface can be touched lightly without a sensation of stickiness.

Tack Rag Used to remove dust after sanding or screening. May be used dry or with an appropriate liquid compatible with the finish to be used.

Tensile Strength The ability of a film to withstand pulling stresses.

Thermoplastic The property of softening when heated and hardening upon cooling.

Thickness of Film The body on the work after the film of finishing material has thoroughly dried.

Tint A color produced by the addition of another color to white paint or enamel. The act of adding the color to the white material is known as tinting.

Trowel Fill Method To fill an entire floor or large area. Compare with Spot Fill Method.

TSP Tri Sodium Phosphate commonly used to remove surface contaminants from flooring.

Ultraviolet Light Rays that are outside the visible spectrum at its violet end. These rays have a chemical effect upon the dried film of finishing materials. Ultraviolet light is commonly used in curing finishes at the factory for prefinished flooring. Ultraviolet light also causes woods to lighten or darken. See Color Change.

Undercoats Coats that are applied prior to the finishing or final coats.

Unfinished A product that must have stain and/or a finish applied after installation.

Urethane A synthetic chemical structure formed by one of three specific chemical reactions. See Polyurethane.

UV-Cured Polyurethane A special type of polyurethane that is cured by subjecting it to a specific dosage of radiation in the form of ultraviolet light. See Polyurethane and Ultraviolet.

Vapor Barrier A material, such as foil, plastic film or specially coated paper, with a high resistance to vapor movement, used to control condensation or prevent migration of moisture.

Varnish Any homogeneous transparent or translucent liquid that, when applied as a thin film, hardens upon exposure to air or heat by evaporation, oxidation, polymerization or a combination of these to form a continuous film that imparts protective or decorative properties.

Viscosity A property of fluids, either liquid or gaseous, that can briefly be described as causing resistance to flow. Viscosity is the measure of the combined effects of cohesion and adhesion. It is one of the most important physical properties of an oil, varnish or lacquer. Viscosity is usually measured with the Gardner-Holdt Bubble Viscometer.

Water-Base Urethane A water-borne urethane that is fully cured and dries by water evaporation. See Polyurethane.

Wax Any of a number of resinous, pliable substances of plant or animal origin that are insoluble in water, partially soluble in alcohol, ether, etc. and miscible in all proportions with oils. It is used for making polishes and other products.

Wiping Stains Those stains, usually pigmented, that are applied and then wiped with a cloth to remove excess.

Wire Brushed A method for imparting an artificial texture or distressed appearance to the surface of hardwood flooring.

Wood Filler See Filler.

Yellowing See Ambering.