

Abrasion Resistance	How well a concrete surface or decorative coating resists being worn away by friction or mechanical wear.
Abrasive Blasting	Propelling an abrasive medium (such as sand or steel shot) at high velocity against concrete to roughen, clean, or profile the surface in preparation for decorative coatings or overlays. Methods include sandblasting, shot-blasting, bead blasting, and sand brushing.
Acetone	Common solvent, often used as a carrier for solvent based sealers. Considered an exempt solvent from most VOC regulations.
Acid Etching	Application of muriatic or phosphoric acid to clean or profile a concrete surface. Used as a less effective alternative to abrasive blasting for surface preparation. Must be neutralized and rinsed prior to final coating application.
Acrylic Resin.....	A synthetic resin usually white in color that dries transparent and is resistant to discoloration, moisture, alcohol, acids, alkalis and mineral oils. It is usually made by polymerization of acrylic acid and methacrylic acid
Acrylic Sealer	Typically a single component sealer that is either water or solvent based. Acrylic sealers provide good stain protection, can allow moisture penetration, and may scratch more easily than other sealer types.
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, hard and not too smooth.
Aging.....	Exposure of materials to an environment for an interval of time. The change of a material with time under defined environmental conditions, leading to improvement or deterioration of properties (see weathering).
Air Bubbles	Trapped air or gases below the dried surface sealer. Can be caused by sealer drying too fast due to extreme temperatures or material applied too thickly or incorrectly.
Alkaline Salts.....	Diluted salts that are carried to the surface of a concrete subfloor by water coming up from the ground below. Traditionally, muriatic acid has been used, but it too may leave behind residue.
Alligatoring	Surface imperfections in a coating resulting in a wrinkled appearance. Usually caused by incompatibility of a newly applied coating to the surface or to an existing surface coating or sealer. Also known as orange peel or fish eyeing.
Ambient Environment (Temperature).....	The surrounding environment, can refer to ambient air, ambient water, or ambient soil. Ambient temperature is a term which refers to the temperature in a room, or the temperature which surrounds an object under discussion.
ASTM	American Society for Testing and Materials is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.
Bleeding.....	Undesired migration of materials in a coating to the surface of the floor through construction joints or saw cuts. May be caused by moisture in sub base, not enough open dry time, or the use of no-rinse strippers within the first two years of the installation.
Blister.....	A raised spot on the surface of a floor similar in shape to a blister on human skin. How soon after installation a blister develops can help determine the cause. Blisters that occur within a few hours are usually due to a concentration of trapped air. Blisters that occur at a later time often indicate the presence of moisture in the substrate.

Blistering.....	The formation of blisters in toppings or coatings and the loss of adhesion with the underlying substrate. On concrete surfaces, this is often caused by moisture or moisture vapor transmission problems.
Bond	The degree of adhesion or grip of a material (such as coatings, toppings, repair mortars, or sealers) to an existing surface.
Bond Breaker	A material that prevents adhesion of materials to a concrete substrate. Common sealer bond breakers include release agents, and environmental debris.
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.....	The wet or dry thickness of a coating or topping. (Also see high-build coating). Typically measured in mil (Also see mil)
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 and sometimes glossiness of the finished work.
Calcium Chloride Vapor Emission Test	An ASTM test used to measure the volume of moisture vapor released from a concrete substrate over time (typically 24-72 hours). Too much moisture emitted from a slab can affect the performance and bonding of overlays, coatings, and sealers. Moisture vapor test kits are available that include small containers of pre-weighed, un-hydrated calcium chloride.
Chalking	Loose, powdery substance caused by deterioration of a concrete surface or degradation of a coating or overlay.
Chemical Resistance	Resistance to softening, bleaching or discoloration from common chemicals that may be spilled on the floor. Chemical resistance is most dependent on the composition of the product, the existence and chemistry of the surface coating and the susceptibility of the seams to failure in chemical spills.
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.
Combustible	Having a flash point of 80-150 degrees F.
Concrete Sealer	Sealers are normally a finish coating used to protect concrete floors from traffic and surface cleaning and should not be used when the slab is intended as a substrate for resilient flooring. Sealers are designed to prevent water and dirt from getting into the concrete from the surface and render the concrete less porous. Typically, sealers should be applied in multiple thin coats and be recoated over time.
Concrete Surface Profile.....	The degree of roughness of a concrete surface achievable with various surface preparation methods. The International Concrete Repair Institute has identified nine distinct roughness profiles considered to be suitable for the application of sealers, coatings, and polymer-modified overlays.
Coverage Rate	The area that a specified volume of coating will cover to a specified thickness upon drying.
Crazing.....	The appearance of minute, interlacing cracks or checks on the surface of a dried film of finishing material.
Crosshatching	Sealer application method completed by rolling in alternate directions within a single coat. Crosshatching ensures complete coverage of the base surface.

Cure Time	Time required to complete the cure process, before the material exhibits maximum physical, thermal, and chemical properties.
Curing	Action taken to maintain favorable moisture and temperature conditions of freshly placed concrete or cementitious materials during a defined period of time following placement. Helps to ensure adequate hydration and proper hardening.
Curing Compound.....	A liquid that, when applied to the surface of newly placed concrete, forms a membrane on the concrete or penetrates the concrete to retard the evaporation of water.
Degreaser	A chemical solution for removing grease, oils, and other contaminants from concrete surfaces.
Delamination	A separation of a coating or topping from a substrate or the layers of a coating from each other due to poor adhesion.
Densifier	A penetrating liquid chemical hardener applied to concrete to help solidify and densify the surface and provide extra protection from water penetration and staining. Often recommended for polished concrete, because hard concrete produces a better polish.
Dew Point	Dew point temperature is defined as: "the temperature at which dew begins to form." Dew is the water you find on your grass or car early in the morning. Some things to know about dew point: The current dew point will never be higher than the current temperature. If the temperature is at the dew point and the temperature falls, the dew point must follow. Higher the dew point temperature more moisture that is in the air. This is important because moisture on an newly coated surface can fail due to the dew.
Dry Film Thickness (DFT)	The final thickness of a cured coatings. It is directly proportional to the volume solids of the coating. Therefore if you apply a wet film of 2.0 mils and the coating has a volume solids of 50%, you can expect the dry film thickness to be 1.0 mils. $\text{Dry Film Thickness (DFT)} = \text{Wet Film Thickness (mils)} \times \% \text{Volume Solids}$
Dry Tack-Free.....	The stage of solidification of a film of finishing coating 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.
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.
Dusting	Appearance of powdery material on the surface of newly hardened concrete. Sometimes caused by allowing the surface to dry too rapidly without curing.
Efflorescence	A crystalline deposit of salts (usually white in color) that forms on the concrete surface when soluble calcium hydroxides leach from the concrete and combine with carbon dioxide in the atmosphere. On colored concrete, especially darker tones, these white deposits can be particularly unsightly. Prior to sealer application, these areas can be treated with an acid washing and thorough rinsing.
Epoxy Sealer	A dual component system that reacts when mixed to form a hard, durable surface over the concrete. Epoxy sealers are excellent for high gloss surfaces but can be very UV sensitive and are not heat resistant.
Film Forming Sealer	A type of sealer that forms a surface film to block the penetration of water and contaminants. Film forming sealers are available in various gloss levels ranging from dull on up to gloss and typically enhance the color intensity of the finished concrete surface.

Film Thickness	The depth of the film when wet (wet film thickness) and the final depth when dry (dry film thickness). Typically measured in Mils (1 mil = .001 inches), typical piece of paper = 10 mils, typical credit card = 120 mils.
Fish Eyes	Also called cratering, crawling, holes, spots or flow marks. When caused by surface contaminants the finish is applied over areas in which the wetting agents cannot perform their function. The finish then recedes away from this area reforming into the film. This "crawling" creates round or elliptical areas lacking adequate finish.
Flattening Agent	A material added to a normally glossy coating to reduce luster and produce a flat appearance.
Gallons Per Minute.....	GPM is used rate the tips used in spraying sealer, generally range from 0.1 to 1.0 gallons per minute.
Gauge	The nominal thickness of a layer within the material.
GaugeRake	A rake (or squeegee) with either feet (or notches) used to apply a coating to a pre-determined uniform thickness (aka Pin Rake).
Gloss Meter	An instrument for measuring the luster or gloss of a finished surface.
Grinding.....	A mechanical surface preparation method using rotating abrasive stones or discs to remove thin coatings and mastics or slight flaws and protrusions.
Hardness.....	That property of the 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 Build Coating	A protective or decorative coating that produces a thick film (usually greater than 10 mils) in a single coat.
High Pressure Water Blasting	A process for cleaning or roughening concrete surfaces using a stream of water delivered at high pressure, typically above 2,500 psi.
High Solids	A general term used to denote the presence of a higher than average percentage of solid ingredients and thus a lower percentage of solvents.
High Volume Low Pressure (HVLP) Sprayer.....	A spraying device that applies high-solids paints and coatings at low pressure and low velocity, to reduce overspray.
Humidity	The amount of water vapor in the air. See Relative Humidity.
Hydrostatic Pressure	Pressure which forces water up through a below-grade slab, generally causing installation problems due to moisture. This occurs when the water table is higher than the slab. Hydrostatic pressure is caused by the weight of the water pressing down on itself.
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.
Joint Sealant	A material that minimizes both infiltration of surface water and incompressible material into the joint system.
Laitance	A thin layer of fine, loosely bonded particles on the surface of fresh concrete, caused by the upward movement of water. Laitance must be removed before application of a decorative coating or topping.

Lap	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.
LEED.....	(Leadership in Energy and Environmental Design®): A green building rating system that was developed by the U.S. Green Building Council in 2000 through a consensus based process. LEED is a tool for buildings of all types and size. LEED certification offers third party validation of a project's environmental features and verifies that the building is operating exactly the way it was designed to.
Light Reflectivity	The characteristics of a material which determines the degree or amount of light which will be reflected from its surface from any given angle.
Membrane.....	Formed over a concrete surface to provide protection and enhance color. Typically clear plastic like acrylic, polyurethane or epoxy.
Mil.....	A measurement equal to 1/1,000 (0.001) inch. Commonly used to denote coating thickness.
Milky	Having the appearance of milk or showing some whiteness. Can be caused by over application of water based sealers 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 Resistance	The measure of concrete floors directly in contact with the ground that are never completely dry. Also, the moisture content of new concrete is high, regardless of grade levels.
Moisture Vapor Transmission	The migration of moisture vapor to the surface of a concrete slab, caused by vapor pressure differentials in the concrete and the surrounding atmosphere. Can contribute to the failure of impermeable coatings or other floor toppings that do not permit moisture to escape. (Also see calcium chloride vapor-emission test.)
Nap	The raised hairs or threads on the surface of a roller, in terms of the direction in which they naturally lie. Typically measured in thickness (e.g., 3/8" nap roller)
Neutral Cleaner	A mild (pH of 6 to 8) detergent that does not contain any strongly alkaline materials, and is designed to remove soil.
Neutralize	To return concrete to the proper pH after acid etching, generally by washing the surface with a mixture of water and ammonia or sodium carbonate. Ideal pH is 7.0 (neutral), but a pH range of 6.0-9.0 is acceptable for most coatings. ASTM D 4262, "Standard Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces," covers the procedure for determining the acidity or alkalinity of concrete surfaces prepared by chemical cleaning or etching prior to coating application. See pH test.
Non-Skid Coating	A surface coating designed to prevent or reduce the slipperiness of a surface.
Nonvolatile	That portion of a material which doesn't evaporate at ordinary temperatures; the solid substances left behind after the volatiles have evaporated.
Orange Peel	A finish that exhibits a surface texture resembling the surface of an orange. Normally caused by rolling a finish that has cured excessively which freezes the roller pattern in the film. May also be caused by excessive airflow, the velocity of which freezes waves in the film when it sets.
Outgassing.....	The release of absorbed or occluded gases or water vapor.
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 Sealer	A sealer with the ability to penetrate into the concrete surface to increase water repellency and resist stains. Often used on decorative concrete to provide invisible protection without changing the surface appearance.
Percent Solids	Also referred to as Solids Content, it is the relative weight content of the total product which is not water or other volatiles.
Permeability	The degree to which a membrane or coating will allow the passage or penetration of a liquid or gas.
pH Pencil.....	Will indicate the acidity/alkalinity level of a slab for subsequent procedures. Water based stains and some sealers are pH sensitive.
pH Test.....	A test performed on the concrete surface to determine the level of acidity or alkalinity. Typically performed prior to applying sealers or coatings.
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.
Pin Holing	A defect in a coating characterized by pinhead-sized holes that expose the underlying substrate.
Polymer Flooring	A system where individual components are combined to achieve a high grade surface. Usually consists of cement, aggregate, and polymers. The coating thickness and the selection of the system depends on the surface to be applied to.
Porosity.....	A matter which is porous or contains pores which are able to absorb liquid. Subfloors, which are porous, are normally concrete and wood. If there is any doubt as to the porosity of a subfloor, put a few drops of water on the surface. If the water is quickly absorbed, the surface is porous. If the water remains on the surface, the surface is nonporous.
Primer	The first coat of material applied to a concrete surface to improve bonding or adherence of subsequent coats. See also bond coat.
Profile	The act of preparing a concrete surface to achieve the necessary degree of roughness (also see concrete surface profile).
Psychrometer	A simple form of hygrometer, an instrument which measures relative humidity. The psychrometer compares the dry-bulb and wet-bulb air temperatures.
Pump Up Sprayer.....	A low pressure airless sprayer often used to apply sealers and liquid release. Pressure is created by hand pumping.
Recoatability.....	The application characteristics of a polish and the appearance of the film after successive coatings to a surface.
Recoat Window	Manufacturer directed time in which successive coats of material must be applied to the previous coat. When materials are applied outside the recoat window, adhesion failures typically occur.
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.
Sacrificial Coating	A final floor finish or wax designed to protect the sealer or topcoat from wear. Usually applied by mop or floor buffer in several coats to act as a shock absorber to scuffs, scratches, and grime.
Scarifier.....	Milling equipment used to clean and profile concrete surfaces or to remove existing coatings. Uses rotary impact cutters held at a right angle to the surface.

Scrubbing.....	Washing a floor by wetting it with detergent solution, then using a moderately abrasive non-woven pad or appropriate brush, either by hand or attached to a low-speed floor machine, to vigorously agitate the wet surface. This procedure is used when a floor is heavily soiled, and less-aggressive cleaning methods have been unsuccessful. Always rinse thoroughly after scrubbing.
Sealer.....	Liquid applied resin systems that dry or cure into a film and provide protection and color enhancement for decorative concrete floors. Sealing decorative concrete reduces maintenance requirements and helps prevent unwanted staining. Both water-based and solvent-based formulations can be purchased. Some sealers are available in finishes such as gloss, semi-gloss and matte.
Shot Blasting.....	An abrasive blasting method using round iron shot to clean and profile concrete surfaces.
Solvent.....	Liquid typically used as a carrier for sealers and curing compounds.
Solvent Based Products	Some stains, sealers and coatings are manufactured using solvents as the carrier for the liquid mixtures. During application, solvents evaporate into the air. Therefore, some solvents are considered "volatile organic compounds," or VOCs, and it is vital to adhere to the manufacturer's health and safety recommendations during application of any solvent-based product. An SDS (Safety Data Sheet) will document the percentage of VOCs in a specific product. Please note: The specific percentage of VOCs permitted is regulated in most areas of the United States and Canada. The use of solvent-based products is prohibited in some states. Where environmental considerations prohibit use of solvent-based materials, water-based alternatives are readily available.
Spall	Concrete spalling, also known as concrete scaling, is the name used for flaking and chipping of concrete that sometimes occurs in new construction. Often caused by a combination of freezing temperatures and improper mixing and finishing of concrete during placement.
Spiked Roller	Pin needle type of textured roller used in application of high build coatings, relieves surface tension eliminating gas bubbles.
Sprayer Nozzles	Fitting designed for use with sprayers made from various materials, plastic, steel, brass and more. Nozzle can be made to spray in many different patterns such as fan, cone, flat. Choice of the nozzle type and spray pattern should be based on the manufacturer recommendation.
Squeegee	A tool with a flat, smooth rubber blade, that is used to remove or control the flow of liquid on a flat surface. Can also be notched to function as a gauge tool.
Substrate	An existing concrete surface that receives an overlay, decorative or protective coating, repair procedure, or other resurfacing treatment.
Tack	The stickiness or adhesiveness of a material.
Technical Data Sheet	Contains important specifications and manufacturer guidelines for product usage. Includes such data as coverage rates, recommended applications, product limitations, surface preparation guidelines, mix ratios and required mixing times, pot life, application procedures, cure times, performance data, and precautions.
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.
Viscosity.....	A measure of the fluidity of a liquid material. The more viscosity a material such as a sealer or coating has, the less it flows.

- Volatile Organic Compounds (VOC's) Organic chemicals that readily vaporize at normal room temperatures. Concrete coatings, sealers, or cleaning materials that are solvent-based generally have higher VOC contents than water-based materials. Some VOCs can be hazardous when inhaled.
- Water-Based Finishes This large family of finishes has a common trait of having the solids suspended in water which is used as the solvent. A clear, color free finish that is easy to apply with low odor and good stain resistance, fast drying and easy to recoat.
- Wet Film Thickness (WFT) The thickness of an uncured coating material.
- Xylene A common solvent. Used as a carrier for solvent based sealers. High in odor and flammability and considered a VOC omitting solvent.
- Collection of Terms Copied From Creative Maintenance Solutions, Concrete Network, Concrete Décor, Wiki Concrete Forums