

Industry Terms and Definitions

Definitions are written to optimize their congruency with both the common knowledge shared by members of the U.S. paint industry and the definitions provided in documents containing VOC regulations (EPA AIM, OTC, etc.) The definitions in VOC regulation documents are favored where conflict occurs.

DISCLAIMER- The dictionary is not intended to be used as a substitute for reading of the latest copies of VOC regulation documents in order to stay current with changing VOC regulations.

100% Acrylic

A copolymer containing only acrylic monomers--no vinyl acetate or styrene.

Abrasion Resistance

Resistance to frictional wear.

Acrylic

Synthetic resin chemistry used for water based architectural coatings.

Adhesion

Degree of attachment between a coating and the material under the coating.

Alkyd

Synthetic resin chemistry used for architectural coatings.

Architectural Coating

Coating applied to a stationary structure such a building. Examples include apartments, homes, offices, manufacturing buildings, recreational facilities, warehouses, etc.

Binder

Synonymous with resin; the material which adheres the components of a coating together and adheres the coating to the material under the coating.

Bitumen

Black or brown material including but not limited to asphalt, tar and pitch. Bitumen are soluble in carbon disulfide and consist primarily of hydrocarbons. They are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

Bituminous Roof Coating

Coating with bitumen for the binder that is labeled for exclusive use as a roof coating.

Bridging

Ability of the coating to cover over an unfilled gap such as a crack or a corner.

Brittleness

Tendency of a dried paint film to crack or flack when it is bent or scratched.

Blistering

Loss of adhesion (also called wet adhesion) when water penetrates to the coating/substrate interface and blisters or bubbles form.

Bubbling

Loss of adhesion (also called wet adhesion) when water penetrates to the coating/substrate interface and blisters or bubbles form.

Catalyst

An additive for increasing the rate of cure for a paint film that forms by a chemical reaction.

Checking

Formation of cracks in a paint film from lack of cohesion; a problem that can be caused by applying a coating too thickly.

Chipping

Breakage of fragments from a coating due to impact or bending; a problem that can be caused by lack of adhesion and/or insufficient flexibility.

Clarity

Level of transparency; the extent to which a coating is clear rather than being hazy, milky, cloudy, etc.

Cloudiness

The lack of clarity or transparency in a nonpigmented coating.

Coating

A material containing resin that is applied to a substrate or surface to provide protection and/or decoration. This includes, but is not limited to, paints, sealers, stains and varnishes.

Cobwebbing

The formation of fine filaments during spray because of abnormal atomization.

Cold Check

Formation of cracks or checks that appear in a paint film caused by film expansion and contraction due to temperature changes.

Colorant

A concentrated dispersion of pigment in water, solvent and/or binder that is added to a white base paint to produce a desired tint or color.

Color Retention

Ability of a coating to show little change in color when exposed to bright sunlight for extended periods of time.

Compatibility

Ability of two different materials to maintain perfect mixture without separation because sufficiently similar chemistries.

Cratering

Formation of small depressions in a paint film surface, usually because of the presence of low energy materials on the substrate or in the coating.

Crawling

Tendency of the entire coating withdrawn from an entire region of substrate because of the low surface energy of the substrate.

Curing

Complete drying of a coating by heat or air flow over the coating and the development of all its final physical characteristics.

Dipping

Method of application where parts are dipped into the coating and then set to allow the excess coating to drain off the object.

Exempt Solvent

Solvent that is no longer considered when calculating volatile organic content (VOC) because the relevant federal and state environmental regulatory agencies have declared it to be exempt. Examples include acetone, PCTBF, tertiary butyl acetate and a list of materials that are not commercially viable for use in common coatings.

Flash Point

Minimum temperature at which a coating gives off enough vapor in enough concentration that it will burn when a spark is ignited in the vapor.

Flat Coating

Coating with a gloss greater than 15 when measured at 85 degrees or a gloss less than 5 when measured at 60 degrees.

Floor Coating

An opaque coating that is formulated and labeled for application to flooring and thus is subjected to pedestrian traffic (foot traffic). Flooring includes, but is not limited to, floors in buildings, decks, porches and steps.

Flow Coating

Coating formulated and labeled for exclusive use by electrical power companies or their subcontractors to maintain the protective coatings on utility transformer units.

Ford Cup

Bench top viscometer for which the drain time is measured.

Gloss

A measure of the degree to which light is reflected in along parallel lines (objects with a higher gloss will have a 'shine').

Gloss Meter

Instrument that measures gloss at three different angles: 20, 60 and 85 degrees.

Grain Raising

Roughness of a wood surface caused by swelling and stiffening of short surface fibers.

Hardness

Property of a coating causing it to resist mar, denting or penetration by contact with another object.

Haze

Dullness to a coating (lack of transparency) that prevents the reflection of light. It can be wiped away if it is caused by fugitive additives migrating to the surface.

Holdout

Ability of a finish to resist penetration into another surface.

Hot Spray

Application equipment heats the coating to decrease the viscosity--this allows the use of higher resin concentrations. The coating dries quicker because the volatiles evaporate faster.

Humidity

Quantity of moisture (water vapor) in the air.

Induction Time

Amount of time before a mixture of two materials becomes homogenous.

Industrial Maintenance Coating

A high performance architectural coating formulated for application to substrates exposed to one or several extreme environmental conditions: immersion in water, wastewater or chemical solutions (aqueous or nonaqueous); chronic exposure of interior surfaces to moisture condensation; acute or chronic exposure to corrosive, caustic or acidic compounds or to chemicals, chemical fumes or mixtures of solutions of chemicals; repeated exposure to temperatures above 121 C (250 F); repeated physical contacts including heavy abrasion, mechanical wear, scrubbing with industrial solvents, cleansers or scouring agents; exposure of metal structures or structural components to the exterior environment.

Lacquer

Coating that dries by evaporation.

Leveling

Ability of a wet coating to form a smooth level surface before it dries or cures.

Lifting

Raising or wrinkling of a coating when it is softened or attacked by the solvent of a second coat.

Light Fastness

See Color Retention.

Lower Explosive Limit

Lowest concentration of a gas or vapor (percent by volume in air) that will burn or explode if a source of ignition is present.

Mar Resistance

Having good surface slip and/or hardness to resist dulling and scratching from light abrasion.

Mastic Texture Coating

Coating formulated and labeled for use to cover holes, minor cracks and/or to conceal surface irregularities with the application of a single coating with at least 10 mils (0.010 inch) dry film thickness.

Orange Peel

Having a surface with cratering sufficiently uniform across the surface that it has the appearance of the skin of a citrus fruit.

Plasticizer

Material added to a coating to increase its flexibility.

Primer

Coating formulated and labeled for application to a substrate to cover the substrate and in turn provide a (possibly sanded) surface to which the next coat or topcoat will adhere to with good adhesion.

Retarder (Solvent)

Solvent with a slow evaporation that is added to a coating (that dries by evaporation of solvent) to increase the time required for the coating to dry.

Sag / Sagging

Tendency for part of a coating on a vertical surface to drip or run down the side thus leaving a streak in what was intended to be a uniform and flat coating surface.

Sanding Sealer

Clear or semi-transparent coating formulated and labeled for application to bare wood to seal the wood and to provide a coat that can be abraded (or sanded) to a smooth surface to which another coat (or topcoat) can be applied.

Sealer

Coating on raw wood intended to "plug up" any pores. A sealer creates a flat surface for the next coating, the topcoat.

Settling

Separation of pigments to the bottom of the container over a period while the coating is in storage.

Stain

Clear, semi-transparent or opaque coating formulated and labeled to change the color of a surface but not conceal the grain pattern or texture.

Tint Base

An architectural coating that is packaged as a white paint and it is formulated so that a colorant or colorants can be added to it at the point of sale to create a customer chosen color.

Topcoat

The outermost coating when two or more different coatings are applied to the substrate.

Undercoated

A coating applied to the substrate which becomes the surface for the next coating (a topcoat). Undercoaters may be used to enhance adhesion. They may enhance coating cost-in-use by filling substrate voids with a lower cost material.

Varnish

Clear or semi-transparent wood coating (excluding lacquers and shellacs) formulated to dry by either a chemical reaction or exposure to air (oxidation). Varnishes may contain a small amount of pigment to color a surface or to control sheen or gloss.

Vehicle

Synonym for binder or resin--the portion of the coating consisting of polymer that forms the film and 1) adheres the coating to a surface and 2) holds the pigment particles together.

VOC

1) VOC=volatile organic compound, a material in a coating that contains carbon and it is not on a list of exclusions or exempt solvents; 2) the number from a regionally accepted experiment and calculation (example: EPA Method 24 in the U.S.) that reports the concentration of VOC volatiles in grams per liter or pounds per gallon. This second definition, often referred to as VOC, is more properly referred to as VOC Content.

Yellowing

Tendency for the color of a coating to change to a more yellow color. The change may vary from slight (off-white) to extreme (canary-yellow) and may result from the presence of aromatic, alkene or alkyne functional groups in a coating exposed to direct sunlight.