

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9VAC5 CHAPTER 45
CONSUMER AND COMMERCIAL PRODUCTS

Part II
Emission Standards

Article 5
Emission Standards for Architectural and Industrial Maintenance Coatings

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9VAC5-45-520. Applicability.

A. Except as provided in 9VAC5-45-530, the provisions of this article apply to any owner or other person who supplies, sells, offers for sale, or manufactures any architectural coating for use, as well as any owner or other person who applies or solicits the application of any architectural coating.

B. The provisions of this article apply only to owners and other persons in the Northern Virginia, Fredericksburg, and Richmond Volatile Organic Compound Emissions Control Areas designated in 9VAC5-20-206.

9VAC5-45-530. Exemptions.

A. The provisions of this article do not apply to:

1. Any architectural coating that is sold or manufactured for use exclusively outside of the Northern Virginia, Fredericksburg and Richmond Volatile Organic Compound Emissions Control Areas or for shipment to other manufacturers for reformulation or repackaging.

2. Any aerosol coating product.

3. Any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less.

B. For purposes of this article, the terms "supply" or "supplied" do not include internal transactions within a business or governmental entity. These terms only apply to transactions between manufacturers/commercial distributors that sell, or otherwise provide, products to businesses/governmental entities/individuals.

9VAC5-45-540. Definitions.

A. For the purpose of applying this article in the context of the Regulations for the Control and Abatement of Air Pollution and related uses, the words or terms shall have the meanings given them in subsection C of this section.

B. As used in this article, all terms not defined herein shall have the meanings given them in 9VAC5-10 (General Definitions) unless otherwise required by context.

C. Terms defined.

"Adhesive" means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

"Aerosol coating product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.

"Antenna coating" means a coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

"Antifouling coating" means a coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling coating, the coating shall be registered with both the U.S. EPA under the Federal Insecticide, Fungicide and Rodenticide Act (7 USC § 136 et seq.) and with the Pesticide Control Board under the provisions of Chapter 39 (§ 3.2-3900 et seq.) of Title 3.2 of the Code of Virginia.

"Appurtenance" means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks and fire escapes; and window screens.

"Architectural coating" means a coating to be applied to stationary structures or the appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to nonstationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purposes of this article.

"ASTM" means the American Society for Testing and Materials.

"Bitumens" means black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits of asphalt or as residues from the distillation of crude petroleum or coal.

"Bituminous roof coating" means a coating that incorporates bitumens that is labeled and formulated exclusively for roofing.

"Bituminous roof primer" means a primer that consists of a coating or mastic formulated and recommended for roofing, pavement sealing, or waterproofing that incorporates bitumens.

"Bond breaker" means a coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

"Calcimine recoater" means a flat solvent borne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.

"Clear brushing lacquers" means clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, which are intended exclusively for application by brush and that are labeled as specified in subdivision 5 of 9VAC5-45-560.

"Clear wood coatings" means clear and semitransparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

"Coating" means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

"Colorant" means a concentrated pigment dispersion in water, solvent, or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

"Concrete curing compound" means a coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water.

"Concrete surface retarder" means a mixture of retarding ingredients such as extender pigments, primary pigments, resin, and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix of cement and sand at the surface to be washed away to create an exposed aggregate finish.

"Conversion varnish" means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-component product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. The film formation is the result of an acid-catalyzed condensation reaction, effecting a transesterification at the reactive ethers of the amino resins.

"Dry fog coating" means a coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

"Exempt compound" means a compound identified as exempt under the definition of Volatile Organic Compound (VOC) in 9VAC5-10-20. Exempt compounds content of a coating shall be determined by Reference Method 24 or South Coast Air Quality Management District (SCAQMD) Method for Determination of Exempt Compounds (see 9VAC5-20-21).

"Extreme durability coating" means an air-dried coating, including fluoropolymer-based coating, that is formulated and recommended for application to exterior metal surfaces and touch-up, repair, and overcoating of precoated metal surfaces, and that meets the weathering requirements of American Architectural Manufacturers Association Voluntary Specification - Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (see 9VAC5-20-21).

"Faux finishing coating" means a coating labeled and formulated as a stain or a glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

"Fire-resistive coating" means an opaque coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, that has been fire tested and rated by a testing agency and approved by building code officials for use in bringing assemblies of structural materials into compliance with federal, state, and local building code requirements. The fire-resistive coating shall be tested in accordance with ASTM Standard Test Method for Fire Tests of Building Construction Materials (see 9VAC5-20-

21).

"Fire-retardant coating" means a coating labeled and formulated to retard ignition and flame spread, that has been fire tested and rated by a testing agency and approved by building code officials for use in bringing building and construction materials into compliance with federal, state, and local building code requirements. The fire-retardant coating shall be tested in accordance with ASTM Standard Test Method for Surface Burning Characteristics of Building Construction Materials (see 9VAC5-20-21).

"Flat coating" means a coating that is not defined under any other definition in this article and that registers gloss less than 15 on an 85-degree meter or less than five on a 60-degree meter according to ASTM Standard Test Method for Specular Gloss (see 9VAC5-20-21).

"Floor coating" means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces, that may be subjected to foot traffic.

"Flow coating" means a coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

"Form-release compound" means a coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

"Graphic arts coating or sign paint" means a coating labeled and formulated for hand-application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals including letter enamels, poster colors, copy blockers, and bulletin enamels.

"High-temperature coating" means a high-performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

"Impacted immersion coating" means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage caused by floating ice or debris.

"Industrial maintenance coating" means a high-performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates exposed to one or more of the following extreme environmental conditions, and labeled as specified in subdivision 4 of 9VAC5-45-560:

1. Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposures of interior surfaces to moisture condensation;
2. Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
3. Repeated exposure to temperatures above 121°C (250°F);
4. Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
5. Exterior exposure of metal structures and structural components.

"Lacquer" means a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

"Low-solids coating" means a coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material.

"Magnesite cement coating" means a coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

"Mastic texture coating" means a coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

"Metallic pigmented coating" means a coating containing at least 48 grams of elemental metallic pigment, mica particles or any combination of metallic pigment or mica particles per liter of coating as applied (0.4 pounds per gallon), when tested in accordance with South Coast Air Quality Air Management District (SCAQMD) Method for Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction (see 9VAC5-20-21).

"Multicolor coating" means a coating that is packaged in a single container and that exhibits more than one color when applied in a single coat.

"Nonflat coating" means a coating that is not defined under any other definition in this article and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to ASTM Standard Test Method for Specular Gloss (see 9VAC5-20-21).

"Nonflat high-gloss coating" means a nonflat coating that registers a gloss of 70 or above on a 60-degree meter according to ASTM Standard Test Method for Specular Gloss (see 9VAC5-20-21).

"Nonindustrial use" means any use of architectural coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities; transportation infrastructure, including highways, bridges, airports and railroads; facilities used in mining activities, including petroleum extraction; and utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

"Nuclear coating" means a protective coating formulated and recommended to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusions by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure as determined by ASTM Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants (see 9VAC5-20-21), relatively easy to decontaminate, and resistant to various chemicals to which the coatings are likely to be exposed as determined by ASTM Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants (see 9VAC5-20-21).

"Post-consumer coating" means a finished coating that would have been disposed of in a landfill, having completed its usefulness to a consumer, and does not include manufacturing wastes.

"Pretreatment wash primer" means a primer that contains a minimum of 0.5% acid, by weight, when tested in accordance with ASTM Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products (see 9VAC5-20-21), that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

"Primer" means a coating labeled and formulated for application to a substrate to provide a firm bind between the substrate and subsequent coats.

"Quick-dry enamel" means a nonflat coating that is labeled as specified in subdivision 8 of 9VAC5-45-560 and that is formulated to have the following characteristics:

1. Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27°C (60 and 80°F);
2. When tested in accordance with ASTM Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature (see 9VAC5-20-21), sets to touch in two hours or less, is tack free in four hours or less, and dries hard in eight hours or less by the mechanical test method; and

3. Has a dried film gloss of 70 or above on a 60-degree meter.

"Quick-dry primer sealer and undercoater" means a primer, sealer, or undercoater that is dry to the touch in 30 minutes and can be recoated in two hours when tested in accordance with ASTM Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature (see 9VAC5-20-21).

"Recycled coating" means an architectural coating formulated such that not less than 50% of the total weight consists of secondary and post-consumer coating, with not less than 10% of the total weight consisting of post-consumer coating.

"Residence" means areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

"Roof coating" means a nonbituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings, which qualify as metallic pigmented coatings, shall not be considered in this category, but shall be considered to be in the metallic pigmented coatings category.

"Rust-preventive coating" means a coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces and labeled as specified in subdivision 6 of 9VAC5-45-560.

"Sanding sealer" means a clear or semitransparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of coatings. A sanding sealer that also meets the definition of a lacquer is not included in this category, but it is included in the lacquer category.

"Sealer" means a coating labeled and formulated for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

"Secondary coating (rework)" means a fragment of a finished coating or a finished coating from a manufacturing process that has converted resources into a commodity of real economic value, but does not include excess virgin resources of the manufacturing process.

"Shellac" means a clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Lacifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

"Shop application" means the application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

"Solicit" means to require for use or to specify by written or oral contract.

"Specialty primer, sealer, and undercoater" means a coating labeled as specified in subdivision 7 of 9VAC5-45-560 and that is formulated for application to a substrate to seal fire, smoke or water damage; to condition excessively chalky surfaces; or to block stains. An excessively chalky surface is one that is defined as having a chalk rating of four or less as determined by ASTM Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films (see 9VAC5-20-21).

"Stain" means a clear, semitransparent, or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

"Swimming pool coating" means a coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals.

"Swimming pool repair and maintenance coating" means a rubber-based coating labeled and formulated to be used over existing rubber-based coatings for the repair and maintenance of swimming pools.

"Temperature-indicator safety coating" means a coating labeled and formulated as a color-changing indicator coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

"Thermoplastic rubber coating and mastic" means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40% by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments, and modifying resins.

"Tint base" means an architectural coating to which colorant is added after packaging in sale units to produce a desired color.

"Traffic marking coating" means a coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berets, driveways, parking lots, sidewalks, and airport runways.

"Undercoater" means a coating labeled and formulated to provide a smooth surface for subsequent coatings.

"Varnish" means a clear or semitransparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface or control the sheen or gloss of the finish.

"VOC content" means the weight of VOC per volume of coating, calculated according to the procedures specified in 9VAC5-45-590 B.

"Waterproofing concrete/masonry sealer" means a clear or pigmented film-forming coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

"Waterproofing sealer" means a coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

"Wood preservative" means a coating labeled and formulated to protect exposed wood from decay or insect attack that is registered with both the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 USC § 136, et seq.) and with the Pesticide Control Board under the provisions of Chapter 39 (§ 3.2-3900 et seq.) of Title 3.2 of the Code of Virginia.

9VAC5-45-550. Standard for volatile organic compounds.

A. Except as provided in this section, no owner or other person shall (i) manufacture, blend, or repackage for sale, (ii) supply, sell, or offer for sale, or (iii) solicit for application or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table 45-5A.

B. If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or any person acting on behalf of a manufacturer, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table 45-5A, then the most restrictive VOC content limit shall apply. This provision does not apply to the following coating categories:

- Lacquer coatings (including lacquer sanding sealers);
- Metallic pigmented coatings;
- Shellacs;
- Fire-retardant coatings;
- Pretreatment wash primers;
- Industrial maintenance coatings;
- Low-solids coatings;
- Wood preservatives;
- High-temperature coatings;

Temperature-indicator safety coatings;
 Antenna coatings;
 Antifouling coatings;
 Flow coatings;
 Bituminous roof primers;
 Calcimine recoaters;
 Impacted immersion coatings;
 Nuclear coatings;
 Thermoplastic rubber coating and mastic; and
 Specialty primers, sealers, and undercoaters.

Table 45-5A
 VOC Content Limits for Architectural Coatings

Limits are expressed in grams of VOC per liter¹ of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. "Manufacturers maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

Coating Category	VOC Content Limit
Flat Coatings	100
Nonflat Coatings	150
Nonflat High Gloss Coatings	250
Specialty Coatings:	
Antenna Coatings	530
Antifouling Coatings	400
Bituminous Roof Coatings	300
Bituminous Roof Primers	350
Bond Breakers	350
Calcimine Recoater	475
Clear Wood Coatings:	
Clear Brushing Lacquers	680
Lacquers (including lacquer sanding sealers)	550
Sanding Sealers (other than lacquer sanding sealers)	350
Conversion Varnishes	725
Varnishes (other than conversion varnishes)	350

Concrete Curing Compounds	350
Concrete Surface Retarder	780
Dry Fog Coatings	400
Extreme durability coating	400
Faux Finishing Coatings	350
Fire-Resistive Coatings	350
Fire-Retardant Coatings:	
Clear	650
Opaque	350
Floor Coatings	250
Flow Coatings	420
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High-Temperature Coatings	420
Impacted Immersion Coating	780
Industrial Maintenance Coatings	340
Low-Solids Coatings	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	300
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Nuclear Coatings	450
Pretreatment Wash Primers	420
Primers, Sealers, and Undercoaters	200
Quick-Dry Enamels	250
Quick-Dry Primers, Sealers and Undercoaters	200
Recycled Coatings	250
Roof Coatings	250
Rust Preventative Coatings	400
Shellacs:	
Clear	730

Opaque	550
Specialty Primers, Sealers, and Undercoaters	350
Stains	250
Swimming Pool Coatings	340
Swimming Pool Repair and Maintenance Coatings	340
Temperature-Indicator Safety Coatings	550
Thermoplastic Rubber Coating and Mastic	550
Traffic Marking Coatings	150
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400
Wood Preservatives	350

¹ Conversion factor: one pound of VOC per gallon (U.S.) = 119.95 grams per liter.

C. A coating manufactured prior to the applicable compliance date specified in 9VAC5-45-580, may be sold, supplied, or offered for sale for two years following the applicable compliance date. In addition, a coating manufactured before the applicable compliance date specified in 9VAC5-45-580, may be applied at any time, both before and after the applicable compliance date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This subsection does not apply to any coating that does not display the date or date code required by subdivision 1 of 9VAC5-45-560.

D. All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging, or other means, shall be closed when not in use. These architectural coatings containers include, but are not limited to, drums, buckets, cans, pails, trays, or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.

E. No owner or other person who applies or solicits the application of any architectural coating shall apply a coating that contains any thinning material that would cause the coating to exceed the applicable VOC limit specified in Table 45-5A.

F. No owner or other person shall apply or solicit the application of any rust preventive coating for industrial use unless such a rust preventive coating complies with the industrial maintenance coating VOC limit specified in Table 45-5A.

G. For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 45-5A, the VOC content limit shall be determined by

classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in 9VAC5-45-540 C, and the corresponding flat or nonflat coating limit shall apply.

H. Notwithstanding the provisions of subsection A of this section, up to 10% by volume of VOC may be added to a lacquer to avoid blushing of the finish during days with relative humidity greater than 70% and temperature below 65°F, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.

9VAC5-45-560. Administrative requirements.

Each manufacturer of any architectural coatings subject to this article shall display the information listed in subdivisions 1 through 8 of this section on the coating container (or label) in which the coating is sold or distributed.

1. The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the board.

2. A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation shall specify that the coating is to be applied without thinning.

3. Each container of any coating subject to this article shall display either the maximum or the actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in 9VAC5-45-590 C. The equations in 9VAC5-45-590 B shall be used to calculate VOC content.

4. In addition to the information specified in subdivisions 1, 2, and 3 of this section, each manufacturer of any industrial maintenance coating subject to this article shall display on the label or the lid of the container in which the coating is sold or distributed one or more of the descriptions listed in this subdivision.

a. "For industrial use only."

b. "For professional use only."

c. "Not for residential use" or "Not intended for residential use."

5. The labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product shall not be thinned or sprayed."

6. The labels of all rust preventive coatings shall prominently display the statement "For Metal Substrates Only."

7. The labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in this subdivision.

- a. For blocking stains.
- b. For fire-damaged substrates.
- c. For smoke-damaged substrates.
- d. For water-damaged substrates.
- e. For excessively chalky substrates.

8. The labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time.

9. The labels of all nonflat high-gloss coatings shall prominently display the words "High Gloss."

9VAC5-45-570. Compliance.

The provisions of subsections B, D, F, and G of 9VAC5-45-20 (Compliance) apply. The other provisions of 9VAC5-45-20 do not apply.

9VAC5-45-580. Compliance schedules.

Affected persons shall comply with the provisions of this article as expeditiously as possible but in no case later than:

1. January 1, 2005, in the Northern Virginia VOC Emissions Control Area;
2. January 1, 2008, in the Fredericksburg VOC Emissions Control Area; or
3. March 1, 2014, in the Richmond VOC Emissions Control Area.

9VAC5-45-590. Test methods and procedures.

A. The provisions of subsection G of 9VAC5-45-30 (Emission testing) apply. The other provisions of 9VAC5-45-30 do not apply.

B. For the purpose of determining compliance with the VOC content limits in Table 45-5A, the VOC content of a coating shall be determined by using the procedures described in subdivision 1 or 2 of this subsection, as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured.

1. With the exception of low solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and exempt compounds. Determine the VOC content using the following equation:

$$VOC\ Content = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})}$$

where:

VOC content = grams of VOC per liter of coating
Ws = weight of volatiles, in grams
Ww = weight of water, in grams
Wec = weight of exempt compounds, in grams
Vm = volume of coating, in liters
Vw = volume of water, in liters
Vec = volume of exempt compounds, in liters

2. For low solids coatings, determine the VOC content in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Determine the VOC content using the following equation:

$$VOC\ Content(ls) = \frac{(W_s - W_w - W_{ec})}{(V_m)}$$

where:

VOC Content (ls) = the VOC content of a low solids coating in grams per liter of coating
Ws = weight of volatiles, in grams
Ww = weight of water, in grams
Wec = weight of exempt compounds, in grams
Vm = volume of coating, in liters

C. To determine the physical properties of a coating in order to perform the

calculations in subsection B, the reference method for VOC content is Reference Method 24 (see 9VAC5-20-21). The exempt compounds content shall be determined by SCAQMD Method for Determination of Exempt Compounds (see 9VAC5-20-21). To determine the VOC content of a coating, the manufacturer may use Reference Method 24, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Reference Method 24 test and any other means for determining VOC content, the Reference Method 24 results will govern. The board may require the manufacturer to conduct a Reference Method 24 analysis.

D. Exempt compounds that are cyclic, branched, or linear, completely methylated siloxanes shall be analyzed as exempt compounds by Bay Area Quality Management District (BAAQMD) Method for Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials (see 9VAC5-20-21).

E. The exempt compound parachlorobenzotrifluoride shall be analyzed as an exempt compound by BAAQMD Method for Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride (see 9VAC5-20-21).

F. The content of compounds exempt under Reference Method 24 shall be determined by SCAQMD Method for Determination of Exempt Compounds, Laboratory Methods of Analysis for Enforcement Samples (see 9VAC5-20-21).

G. The VOC content of a coating shall be determined by Reference Method 24 (see 9VAC5-20-21).

H. The VOC content of coatings may be determined by either Reference Method 24 or SCAQMD Method for Determination of Exempt Compounds, Laboratory Methods of Analysis for Enforcement Samples (see 9VAC5-20-21).

I. Other test methods may be used for purposes of determining compliance with this article consistent with the approval requirements of 9VAC5-45-20 A 2.

J. Analysis of methacrylate multicomponents used as traffic marking coatings shall be conducted according to a modification of Reference Method 24 (40 CFR 59, Subpart D, Appendix A; see 9VAC5-20-21). This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

9VAC5-45-600. Monitoring.

The provisions of 9VAC5-45-40 (Monitoring) do not apply.

9VAC5-45-610. Notification, records and reporting.

A. The provisions of subsections E, F, and H of 9VAC5-45-50 (Notification, records and reporting) apply. The other provisions of 9VAC5-45-50 do not apply.

B. For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall keep records of the following information for products sold during the preceding year:

1. The product brand name and a copy of the product label with the legible usage instructions;

2. The product category listed in Table 45-5A to which the coating belongs;

3. The total sales during the calendar year to the nearest gallon;

4. The volume percentage to the nearest 0.10% of perchloroethylene and methylene chloride in the coating.

C. Upon 90 days written notice, the board may require a responsible party to report the information specified in subsection B of this section.

D. Records required by subsection B of this section shall be maintained by the responsible party for three calendar years from the date such records were created.

HISTORICAL NOTES:

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