

**Sec. 22a-174-41. Architectural and industrial maintenance coatings - phase 1.**

(a) **Definitions.** For the purposes of this section, the following definitions shall apply:

(1) “Adhesive” means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

(2) “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 marking applications.

(3) “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.

(4) “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.

(5) “Appurtenance” means any accessory to a stationary structure 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; fire escapes; and window screens.

(6) “Architectural coating” means a coating to be applied to stationary structures and their 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 non-stationary structures such as airplanes, ships, boats, railcars and automobiles, as well as adhesives are excluded from the definition of “architectural coating.”

(7) “ASTM” means the American Society for Testing and Materials.

(8) “BAAQMD” means the Bay Area Air Quality Management District.

(9) “Bitumen” 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 or as residues from the distillation of crude petroleum or coal.

(10) “Bituminous roof coating” means a coating that incorporates bitumen that is labeled and formulated exclusively for roofing with the primary purpose of preventing water penetration.

(11) “Bituminous roof primer” means a primer that incorporates bitumen that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered and aged surface or improving the adhesion of subsequent surfacing components.

(12) “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.

(13) “Calcimine recoater” means flat, solvent-borne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.

(14) “CAS” means Chemical Abstract Service.

(15) “Clear brushing lacquer” means clear wood finish, excluding clear lacquer sanding

sealer, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film. Such laquer is intended to be applied only with a brush.

(16) “Clear wood coating” means a clear and semi-transparent coating, including lacquers and varnishes, applied to a wood substrate, to provide a transparent or translucent solid film.

(17) “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, paint, varnish, sealer and stain.

(18) “Colorant” means 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.

(19) “Concrete curing compound” means a coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:

(A) Retard the evaporation of water; or

(B) Harden or dustproof the surface of freshly poured concrete.

(20) “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 or cement and sand at the surface to be washed away to create an exposed aggregate finish.

(21) “Conversion varnish” means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single or two-component product. “Conversion varnish” produces a hard, durable, clear finish designed for professional application to wood flooring. This film formation is the result of an acid-catalyzed condensation reaction, affecting a transesterification at the reactive ethers of the amino resins.

(22) “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.

(23) “Exempt compound” means a compound identified in 40 CFR 51.100(s) under “volatile organic compounds,” as amended from time to time, as having negligible photochemical reactivity.

(24) “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.

(25) “Fire-resistive coating” means a coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. “Fire-resistive coating” includes sprayed fire-resistive materials and intumescent fire-resistive coatings that are used to bring structural materials into compliance with federal, state, and local building code requirements.

(26) “Fire-retardant coating” means a coating labeled and formulated to retard ignition and flame spread.

(27) “Flat coating” means a coating that is not defined under any other definition in this section and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter.

(28) “Floor coating” means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors and other horizontal surfaces which may be subjected to foot traffic.

(29) “Flow coating” means a coating labeled and formulated exclusively for use to maintain the protective coating systems present on utility transformer units.

(30) “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.

(31) “Graphic arts coating or sign paint” means a coating labeled and formulated for hand-application by artists using brush, airbrush or roller techniques to indoor and outdoor signs, not including structural components, and murals including letter enamel, poster color, copy blocker, and bulletin enamel.

(32) “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).

(33) “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 by floating ice or debris.

(34) “Industrial maintenance coating” means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats and topcoats, formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions:

(A) Immersion in water, wastewater or chemical solutions (aqueous and non-aqueous solutions), or chronic exposures of interior surfaces to moisture condensation;

(B) Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

(C) Frequent exposure to temperatures above 121°C (250°F);

(D) Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers or scouring agents; or

(E) Exterior exposure of metal structures and structural components.

(35) “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.

(36) “Low solids coating” means a coating containing 0.12 kilogram or less of solids per liter (one pound or less of solids per gallon) of coating material as recommended for application by the manufacturer.

(37) “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.

(38) “Manufacturer’s formulation data” means data regarding a coating that are supplied by the materials manufacturer based on the manufacturer’s knowledge of the ingredients used to manufacture that coating, rather than on an EPA reference test method. “Manufacturer’s formulation data” may include but are not limited to information on

density, VOC content and coating solids content.

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

(40) “Metallic pigmented coating” means a coating that is labeled and formulated to provide a metallic appearance and that contains at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon).

(41) “Multi-color coating” means a coating that is packaged in a single container and labeled and formulated to exhibit more than one color when applied in a single coat.

(42) “Multi-component coating” means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film.

(43) “Nonflat coating” means a coating that is not defined under any other definition in this section and registers a gloss of 15 or greater on an 85-degree meter and five or greater on a 60-degree meter.

(44) “Nonflat-high gloss coating” means a nonflat coating that registers a gloss of 70 or above on a 60-degree meter.

(45) “Nuclear coating” means a protective coating formulated and recommended to seal porous surfaces such as steel or concrete that otherwise would be subject to intrusion by radioactive materials. Such coatings are resistant to long-term (service life) cumulative radiation exposure, relatively easy to decontaminate and resistant to various chemicals to which such coatings are likely to be exposed.

(46) “NYSDEC” means the New York State Department of Environmental Conservation.

(47) “Post-consumer coating” means a finished coating generated by a business or consumer that has served its intended end use and is recovered from or otherwise diverted from the waste stream for the purpose of recycling.

(48) “Pre-treatment wash primer” means a primer containing a minimum of 0.5 percent acid, by weight, labeled and formulated for direct application to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

(49) “Primer” means a coating labeled and formulated for application to a substrate to provide a firm bond between the substrate and subsequent coats.

(50) “Quick-dry enamel” means a nonflat coating that is labeled as specified in subsection (e) of this section and that is formulated to have the following characteristics:

(A) Capable of being applied directly from the container under normal conditions with ambient temperatures between 16° and 27°C (60° and 80°F);

(B) Tack free in four hours or less and dries hard in eight hours or less by the mechanical test methods; and

(C) A dried film gloss of 70 or above on a 60-degree meter.

(51) “Quick-dry primer sealer and undercoater” means a primer sealer or under-coater that is dry to the touch in 30 minutes and can be re-coated in two hours.

(52) “Recycled coating” means an architectural coating formulated to contain a minimum of 50 percent by volume post-consumer coating, with a maximum of 50 percent by volume secondary industrial materials or virgin materials.

(53) “Roof coating” means a non-bituminous coating labeled and formulated for

application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.

(54) “Rust preventive coating” means a coating formulated to prevent the corrosion of metal surfaces. “Rust preventative coating” includes direct-to-metal coating and coating intended for application over rusty, previously coated surfaces. “Rust preventative coating” does not include coatings that are required to be applied as a topcoat over a primer or coatings that are intended for use on wood or any other nonmetallic surface.

(55) “Sanding sealer” means a clear or semi-transparent 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 shall be excluded from this definition and shall be considered a lacquer.

(56) “SCAQMD” means the South Coast Air Quality Management District, a part of the California Air Resources Board.

(57) “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.

(58) “Secondary industrial material” means a product or by-product of the paint manufacturing process that is of known composition and has economic value but can no longer be used for its intended use.

(59) “Shellac” means a clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Lacifffer lacca*) and formulated to dry by evaporation without a chemical reaction.

(60) “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).

(61) “Solicit” means to require for use or to specify by written or oral contract.

(62) “Specialty primer, sealer and undercoater” means a coating that is formulated for application to a substrate to seal fire, smoke or water damage, to condition excessively chalky surfaces, or to block stains. For the purposes of this definition, an excessively chalky surface is one that is defined as having a chalk rating of four or less.

(63) “Stain” means a semi-transparent or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

(64) “Swimming pool coating” means a coating labeled and formulated to coat the interior of swimming pools and resist swimming pool chemicals.

(65) “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.

(66) “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).

(67) “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 percent 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.

(68) “Tint base” means an architectural coating to which colorant is added, after packaging in sale units, to produce a desired color.

(69) “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, berms, driveways, parking lots, sidewalks and airport runways.

(70) “Undercoater” means a coating labeled and formulated to provide a smooth surface for subsequent coatings.

(71) “Varnish” means a clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction. “Varnish” may contain small amounts of pigment to color a surface or to control the final sheen or gloss of the finish.

(72) “VOC content” means the weight of VOC per volume of coating.

(73) “Waterproofing sealer” means a coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

(74) “Waterproofing or 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.

(75) “Wood preservative” means a coating labeled and formulated to protect exposed wood from decay or insect attack.

**(b) Applicability.**

(1) Except as provided in subsection (c) of this section, this section applies to any person who sells, supplies, offers for sale or manufactures for sale in the state of Connecticut any architectural coating for use in the state of Connecticut and to any person who applies or solicits the application of any architectural coating within the state of Connecticut.

(2) The requirements of this section apply to products manufactured prior to May 1, 2018. Any architectural coating manufactured prior to May 1, 2018 that complies with the requirements of this section may be sold, supplied or offered for sale through April 30, 2021.

**(c) Exemptions and exceptions.**

(1) This section shall not apply to any architectural coating manufactured in the state of Connecticut for shipment, sale and use outside of the state of Connecticut or for shipment to other manufacturers for reformulation or repackaging.

(2) A coating manufactured prior to May 1, 2018 may be applied at any time as long as the coating complies with any applicable VOC standard in effect at the time the coating was manufactured. The exception offered in this subdivision shall only apply to a coating that displays a date or date code as required by subsection (e)(1) of this section.

(3) This section shall not apply to any aerosol coating product.

(4) This section shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less, including kits containing containers of different colors, types or categories of coatings and two component products. This exemption does not include (A) bundling of containers one liter or less, which are sold together as a unit, or any type of marketing which implies that multiple containers one liter

or less be combined into one container; (B) packaging from which the coating cannot be applied; and (C) multiple containers of one liter or less that are packaged and shipped together with no intent or requirement to ultimately sell as one unit.

(5) As used in this section, the terms “supply” and “supplied” shall not include internal transfers or transactions involving architectural coatings to, from or within an installation operated by any branch of the U.S. military.

**(d) Standards.**

(1) Except as provided in subdivisions (2) and (8) of this subsection and subsection (c) of this section, no person shall manufacture, blend or repackage for sale within the state of Connecticut, supply, sell or offer for sale within the state of Connecticut or solicit for application or apply within the state of Connecticut any architectural coating that contains VOCs in excess of the applicable VOC content limits specified in Table 41-1. The VOC content limits of Table 41-1 apply to the grams of VOC per liter of coating and shall be determined according to subsection (g) of this section.

(2) Except as provided in subdivision (3) of this subsection, the most restrictive VOC content limits of Table 41-1 shall apply 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 the manufacturer’s behalf, including retailers who sell under a private label, 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 41-1.

(3) The requirements of subdivision (2) of this subsection shall not apply to the following coating categories:

- (A) Antenna coatings;
- (B) Antifouling coatings;
- (C) Bituminous roof primers;
- (D) Calcimine recoaters;
- (E) Concrete surface retarders;
- (F) Fire-retardant coatings;
- (G) Flow coatings;
- (H) High temperature coatings;
- (I) Impacted immersion coatings;
- (J) Industrial maintenance coatings;
- (K) Lacquer coatings, including lacquer sanding sealers;
- (L) Low-solids coatings;
- (M) Metallic pigmented coatings;
- (N) Nuclear coatings;
- (O) Pretreatment wash primers;
- (P) Shellacs;
- (Q) Specialty primers, sealers and undercoaters;
- (R) Temperature-indicator safety coatings;
- (S) Thermoplastic rubber coatings and mastics; or
- (T) Wood preservatives.

(4) All containers of coating that are applied directly to a surface from the container by

pouring, siphoning, brushing, rolling, padding, ragging or other means shall be closed when not in use. These 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 be closed when not in use.

(5) No person who applies or solicits the application of any architectural coating shall add additional solvent to a coating if such addition causes the coating to exceed the applicable VOC limit specified in Table 41-1 of this section.

(6) No 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 41-1 of this section.

(7) For any coating that is not identified in this section, the VOC content limit shall be determined by classifying the coating as a flat coating, nonflat coating or nonflat-high gloss coating, as those terms are defined in subsection (a) of this section, and the corresponding coating limit of Table 41-1 of this section shall apply.

(8) Notwithstanding the provisions of subdivision (1) of this subsection, a person may, at the time of application, add up to 10% by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater than 70% and temperature below 65°F, 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.

(e) **Container labeling.**

(1) **Date code.** On each container of an architectural coating, the manufacturer shall clearly display the date the coating was manufactured, or a date code representing the date of manufacture, as follows:

(A) The date or date code shall be located on the label, lid or bottom of the container so that it is readily observable without disassembling the container or package; and

(B) If the manufacturer uses a date code for any coating, an explanation of such code shall be available to the commissioner upon request. A manufacturer shall respond to such a request within 90 days of receipt.

(2) **Thinning.** On the label or lid of the container of an architectural coating, the manufacturer shall display a statement of the manufacturer's recommendation regarding thinning of the coating. This requirement shall 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) **VOC content.** On the label, lid or bottom of the container of an architectural coating, the manufacturer shall display either the maximum or the actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. The VOC content shall be displayed in grams of VOC per liter of coating. The VOC content displayed shall be calculated using the manufacturer's formulation data or shall be determined using the calculations, procedures and test methods in subsection (g) of this section.

(4) **Industrial maintenance coatings.** The manufacturer of any industrial maintenance coating shall prominently display on the label at least one of the following statements:

(A) "For industrial use only;"

(B) "For professional use only;"



- (C) “**Not for residential use**”; or
- (D) “**Not intended for residential use.**”

(5) **Clear brushing lacquer.** On the label of any clear brushing lacquer, the manufacturer shall prominently display the statements: “**For brush application only**” and “**This product must not be thinned or sprayed.**”

(6) **Rust preventive coatings.** On the label of any rust preventive coating, the manufacturer shall prominently display the statement: “**For metal substrates only.**”

(7) **Specialty primers, sealers and undercoaters.** The manufacturer of any specialty primer, sealer or undercoater shall prominently display on the label one or more of the descriptions listed in subparagraphs (A) through (E) of this subdivision, as follows:

- (A) “**For blocking stains;**”
- (B) “**For fire-damaged substrates;**”
- (C) “**For smoke-damaged substrates;**”
- (D) “**For water-damaged substrates;**” or
- (E) “**For excessively chalky substrates.**”

(8) **Quick dry enamels.** The manufacturer of any quick dry enamel shall prominently display on the label the dry hard time and the words “**quick dry.**”

(9) **Non-flat high-gloss coatings.** The manufacturer of any non-flat high-gloss coating shall display prominently on the label the words “**high gloss.**”

(f) **Record keeping and reporting requirements.**

(1) Each manufacturer of a product subject to a VOC content limit in subsection (d) of this section shall maintain records demonstrating compliance with such VOC content limits, including the following information:

- (A) The product name and, if applicable, the identifying number, as shown on the product label and in sales and technical literature;
- (B) The VOC content as determined according to subsection (g) of this section;
- (C) The name(s) and CAS number of the VOC constituents in the product;
- (D) The dates of the VOC content determinations;
- (E) The coating category; and
- (F) The applicable VOC content limit.

(2) All records made to demonstrate compliance with this section shall be maintained for five years from the date such record is created and shall be made available to the commissioner or the Administrator not later than 90 days after a request.

(3) Each manufacturer of a coating subject to this section shall, upon request of the commissioner, provide data concerning the distribution and sales of coatings subject to a VOC content limit in subsection (d) of this section. The manufacturer shall, not later than 90 days after receiving such a request, produce information including, but not limited to:

- (A) The name and mailing address of the manufacturer;
- (B) The name, address and telephone number of a contact person;
- (C) The name of the product as it appears on the label and the applicable coating;
- (D) Whether the coating is marketed for interior use, exterior use or both;
- (E) The number of gallons sold in Connecticut in containers greater than one liter and equal to or less than one liter during the preceding calendar year;
- (F) The actual VOC content and VOC content limit in grams per liter. If thinning is

recommended, list the actual VOC content and VOC content limit after recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;

(G) The name and CAS number of the VOC constituents in the coating; and

(H) The name and CAS number of any exempt compounds in the coating.

(4) Any document submitted to the commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall inquire of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and each of whom shall certify in writing as follows:

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.”

(g) **Compliance procedures, registration requirements and test methods.**

(1) Any person who sells, supplies, offers for sale or manufactures an architectural coating manufactured prior to May 1, 2018 for sale in Connecticut shall possess documentation that such coating complies with the VOC content limits of Table 41-1 of this section, where the VOC content is determined according to the requirements of subdivision (2) of this subsection.

(2) The VOC content of a coating shall be determined as follows:

(A) For all coatings that are not low solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer’s recommendation, excluding the volume of any water and exempt compounds, using the following equation:

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

Where:

VOC Content = the VOC content of a coating (g/L of coating)

$W_s$  = weight of volatile components (g)

$W_w$  = weight of water (g)

$W_{ec}$  = weight of exempt compounds (g)

$V_m$  = volume of coating (L)

$V_w$  = volume of water (L)

$V_{ec}$  = volume of exempt compounds (L)

(B) For low solids coatings, determine the VOC content in grams per liter of coating thinned to the manufacturer’s maximum recommendation, including the volume of any water and exempt compounds, using the following equation:

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

Where:

VOC Content (ls) = the VOC content of a low solids coating (g/L of coating) Ws = weight of volatile components (g)

Ww = weight of water (g)

Wec = weight of exempt compounds (g)

Vm = volume of coating (L)

(C) The VOC content of a tint base shall be determined prior to the addition of the colorant;

(D) The weight of volatile components (Ws) shall be determined using the manufacturer's formulation data or by measuring the physical properties of the coating using the procedures and test methods prescribed in subdivision (3) of this subsection;

(E) If the manufacturer does not recommend thinning, the VOC content shall be calculated for the product as supplied;

(F) If the manufacturer recommends thinning, the VOC content shall be calculated including the maximum amount of thinning solvent recommended by the manufacturer; and

(G) If the coating is a multi-component product, the VOC content shall be calculated as mixed or catalyzed.

(3) The following procedures shall be used to determine the physical properties of a coating in order to perform the calculations required pursuant to subdivision (2) of this subsection:

(A) The VOC content shall be calculated according to:

(i) EPA Reference Method 24, 40 CFR 60, Appendix A,

(ii) SCAQMD Method 304-91 (revised February 1996), unless the results are inconsistent with the results of a determination pursuant to subparagraph (A)(i) of this subdivision, or

(iii) An alternative test method approved by the New York Department of Environmental Conservation and the Administrator pursuant to NYSDEC Regulations Part 205.6(c);

(B) The exempt compound content shall be determined using SCAQMD Method 303-91 (revised 1993), except as follows:

(i) Parachlorobenzotrifluoride content shall be determined using BAAQMD Method 41 (revised 1995), and

(ii) Exempt compounds that are cyclic, branched or linear methylated siloxanes shall be determined using BAAQMD Method 43 (revised 1996); and

(C) Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to 40 CFR 59, Subpart D, Appendix A.

(4) Fire-resistive coatings and fire-retardant coatings shall be fire tested and rated by a testing agency according to the appropriate methods listed in subdivision (6) of this subsection.

(5) The following materials are subject to registration as follows:

(A) Antifouling coatings shall be registered with the Administrator under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. section 136 et seq.); and

(B) Wood preservatives shall be registered under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. section 136, et. seq.).

(6) The following test methods or the most current active standard of the designated method shall be used to test coatings for the identified properties, as applicable:

(A) Acid content of coatings. The acid content of a coating shall be determined by ASTM D1613-96, “Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products;”

(B) Chemical resistance for nuclear coatings. Chemical resistance to various chemicals to which nuclear coatings are likely to be exposed shall be measured by ASTM D3912-10, “Standard Test Method for Chemical Resistance of Coatings and Linings for Use in Nuclear Power Plants;”

(C) Drying times. The set-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-03 (2009), “Standard Test Methods for Drying, Curing or Film Formation of Organic Coatings at Room Temperature;”

(D) Fire-resistance rating. The fire-resistance rating of a fire-resistive coating shall be determined by ASTM E119-12, “Standard Test Methods for Fire Tests of Building Construction and Materials;”

(E) Flame spread index. The flame spread index of a fire-retardant coating shall be determined by ASTM E84-12, “Standard Test Method for Surface Burning Characteristics of Building Materials;”

(F) Gloss determination. The gloss of a coating shall be determined by ASTM D523-08, “Standard Test Method for Specular Gloss;”

(G) Long term cumulative radiation exposure. Long-term (service life) cumulative radiation exposure of nuclear coatings shall be measured by ASTM D4082-10, “Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Nuclear Power Plants;”

(H) Metal content of coatings. The metallic content of a coating shall be determined by SCAQMD Method 318-95, “Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction,” SCAQMD Laboratory Methods of Analysis for Enforcement Samples; and

(I) Surface chalkiness. The chalkiness of a surface shall be determined using ASTM D4214-07, “Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.”

**Table 41-1. VOC Content Limits for Architectural Coatings Manufactured Prior to May 1, 2018**

Coating category	VOC content limit (grams VOC per liter)
<b>Flat coating</b>	100
<b>Nonflat coating</b>	150
<b>Nonflat-high gloss coating</b>	250
<b>Specialty Coating</b>	
<b>Antenna coating</b>	530
<b>Antifouling coating</b>	400

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<b>Coating category</b>	<b>VOC content limit (grams VOC per liter)</b>
<b>Bituminous roof coating</b>	300
<b>Bituminous roof primer</b>	350
<b>Bond breaker</b>	350
<b>Calcimine recoater</b>	475
<b>Clear wood coating</b>	
Clear brushing laquer	680
Laquer (including lacquer sanding sealer)	550
Sanding sealer other than lacquer sanding sealer	350
Varnish	350
Conversion varnish	725
Concrete curing compound	350
<b>Concrete surface retarder</b>	780
<b>Dry fog coating</b>	400
<b>Faux finishing coating</b>	350
<b>Fire resistive coating</b>	350
<b>Fire retardant coating</b>	
Clear	650
Opaque	350
<b>Floor coating</b>	250
<b>Flow coating</b>	420
<b>Form-release compound</b>	250
<b>Graphic arts coating (sign paints)</b>	500
<b>High temperature coating</b>	420
<b>Impacted immersion coating</b>	780
<b>Industrial maintenance coating</b>	340
<b>Low solids coating</b>	120
<b>Magnesite cement coating</b>	450
<b>Mastic texture coating</b>	300
<b>Metallic pigmented coating</b>	500
<b>Multi-color coating</b>	250
<b>Nuclear coating</b>	450

*Regulations of Connecticut State Agencies*

<b>Coating category</b>	<b>VOC content limit (grams VOC per liter)</b>
<b>Pre-treatment wash primer</b>	420
<b>Primer, sealer and undercoater</b>	200
<b>Quick-dry enamel</b>	250
<b>Quick-dry primer, sealer and undercoater</b>	200
<b>Recycled coating</b>	250
<b>Roof coating</b>	250
<b>Rust preventive coating</b>	400
<b>Shellac</b>	
Clear	730
Opaque	550
<b>Specialty primer, sealer and undercoater</b>	350
<b>Stain</b>	250
<b>Swimming pool coating</b>	340
<b>Temperature-indicator safety coating</b>	550
<b>Thermoplastic rubber coating and mastic</b>	550
<b>Traffic marking coating</b>	150
<b>Waterproofing sealer</b>	250
<b>Waterproofing concrete or masonry sealer</b>	400
<b>Wood preservative</b>	350

(Adopted effective July 26, 2007; Amended October 5, 2017)