RULE 442 ARCHITECTURAL COATINGS
Adopted 12-6-78
(Amended 8-31-82, 11-29-83, 4-28-87, 10-2-90, 11-16-93, 9-5-96, 5-24-01, 9-24-15, XX-XX-24)

~~Republished 3-24-16~~

INDEX

100 GENERAL

101 **PURPOSE:** To limit the emissions of volatile organic compounds from the use of architectural coatings supplied, sold, marketed, offered for sale, applied, solicited for application, or manufactured for use within the District.

102 **APPLICABILITY:** Except as provided in Sections 110 through 113, this rule is applicable to any person who:

102.1 Supplies, sells, markets, or offers for sale, any architectural coating for use within the District; or

102.2 Manufactures, blends, or repackages any architectural coating for use within the District; or

102.3 Applies or solicits the application of any architectural coating within the District;

103 **SEVERABILITY:** If a court of competent jurisdiction issues an order that any provision of this rule is invalid, it is the intent of the Board of Directors of the District that other provisions of this rule remain in full force and affect, to the extent allowed by law.

110 **EXEMPTIONS, USE OR SHIPMENT OUTSIDE DISTRICT:** This rule does not apply to:

110.1 Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

111 **EXEMPTION, AEROSOL COATINGS:** This rule does not apply to any aerosol coating product.

112 **EXEMPTION, SMALL CONTAINERS:** With the exception of Section 501, this rule does not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less provided both of the following requirements are met:

112.1 The container is not bundled together with other containers of the same specific coating category (listed in Section 301) to be sold as a unit that exceeds one liter (1.057 quarts), excluding containers packed together for shipping to a retail outlet.

112.2 The label or any other product literature does not suggest combining multiple containers of the same specific coating category (listed in Section 301) so that the combination exceeds one liter (1.057 quarts).

113 **EXEMPTION, COLORANTS ADDED AT FACTORY OR WORKSITE:** Colorants added at the factory or at the worksite are not subject to the VOC limits in Section 307. In addition, containers of colorant sold at the point of sale for use in the field or on a job site are also not subject to the VOC limits in Section 307.

200 DEFINITIONS

201 **ADHESIVE:** Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

202 **AEROSOL COATING PRODUCT:** A pressurized coating product containing pigments or resins that dispense 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.

203 **ALUMINUM ROOF COATING:** A coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per liter of coating (at least 0.7 pounds per gallon). Pigment content shall must be determined in accordance with SCAQMD Method 318-95, incorporated by reference in Section 502.4.c.

204 **APPURTENANCE:** 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 down-spouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

205 **ARCHITECTURAL COATING:** 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, and adhesives are not considered architectural coatings for the purpose of this rule.

206 **BASEMENT SPECIALTY COATING:** ~~–~~A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a hydrostatic seal for basements and other below-grade surfaces. ~~-~~Basement Specialty Coatings must meet the following criteria:

206.1 The coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with ASTM Standard D7088-~~08~~17, ~~which is~~ incorporated by reference in Section 502.4.k; and

206.2 The coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of 8 or more, as determined in accordance with ASTM D3273-~~12~~16 and ASTM D3274-09~~e1~~ (2017), incorporated by reference in Section 502.4.q.

207 **BITUMENS:** 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.

208 **BITUMINOUS ROOF COATING:** A coating which incorporates bitumens that is labeled and formulated exclusively for roofing.

209 **BITUMINOUS ROOF PRIMER:** A primer which incorporates bitumens that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered or aged surface or improving the adhesion of subsequent surfacing components.

210 **BOND BREAKER:** 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.

211 **BUILDING ENVELOPE:** The ensemble of exterior and demising partitions of a building that enclose conditioned space.

212 **BUILDING ENVELOPE COATING:** The fluid applied coating applied to the building envelope to provide a continuous barrier to air or vapor leakage through the building envelope that separates conditioned from unconditioned spaces. Building Envelope Coatings are applied to diverse materials including, but not limited to, concrete masonry units (CMU), oriented strand board (OSB), gypsum board, and wood substrates and must meet the following performance criteria:

212.1 Air Barriers formulated to have an air permeance not exceeding 0.004 cubic feet per minute per square foot under a pressure differential of 1.57 pounds per square foot (0.004 cfm/ft^2 @ 1.57 psf), [0.02 liters per square meter per second under pressure differential of 75 Pa (0.02 L/(s-m^2) @ 75 Pa)] when tested in accordance with ASTM E2178-13, incorporated by reference in Section 502.4.v; and/or

212.2 Water Resistive Barriers formulated to resist liquid water that has penetrated a cladding system from further intruding into the exterior wall assembly and is classified as follows:

a. Passes water resistance testing accordance with ASTM E331-00 (2016), incorporated by reference in Section 502.4.w; and
b. Water vapor permeance is classified in accordance with ASTM E96/E96M-16, incorporated by reference in Section 502.4.x.

214 **COATING:** 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.

215 **COLORANT:** A concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

216 **CONCRETE CURING COMPOUND:** A coating labeled and formulated for application to freshly poured concrete to perform one of more of the following functions:
216.1 Retard the evaporation of water; or
216.2 Harden or dustproof the surface of freshly poured concrete.

217 **CONCRETE/MASONRY SEALER:** A clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:
217.1 Prevent penetration of water; or
217.2 Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or
217.3 Harden or dustproof the surface of aged or cured concrete.

218 **CONTINGENCY MEASURE TRIGGER DATE:** The effective date of an EPA final rulemaking that conditions described in Clean Air Act Sections 172(c)(9) and 182(c)(9) have occurred in the District regarding the 2008 or 2015 8-hour Ozone National Ambient Air Quality Standard.

219 **DRIVEWAY SEALER:** A coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:
219.1 Fill cracks; or
219.2 Seal the surface to provide protection; or
219.3 Restore or preserve the appearance.

220 **DRY FOG COATING:** 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.

221 **EXEMPT COMPOUND:** For the purposes of this rule, "exempt compound" has the same meaning as in Rule 101—GENERAL PROVISIONS AND DEFINITIONS. Exempt compounds content of a coating ~~shall~~must be determined by South Coast Air Quality Management District Method 303-91 (Revised ~~1993~~1996), incorporated by reference in Section 502.4.g.

222 **FAUX FINISHING COATING:** A coating labeled and formulated to meet one or more of the following criteria:
222.1 A glaze or textured coating used to create artistic effects, including, but not limited to: dirt, suede, old age, smoke damage, and simulated marble and wood grain; or
222.2 A decorative coating used to create a metallic, iridescent, or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied (at least 0.4 pounds per gallon); or
222.3 A decorative coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of coating as applied

(less than 0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, incorporated by reference in Section 502.4.c; or

2~~18~~21.4 A decorative coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of coating as applied (greater than 0.4 pounds per gallon) and which requires a clear topcoat to prevent the degradation of the finish under normal use conditions. The metallic pigment content ~~shall~~must be determined in accordance with SCAQMD Method 318-95, incorporated by reference in Section 502.4.c; or

2~~18~~21.5 A clear topcoat to seal and protect a Faux Finishing coating that meets the requirements of Section ~~218~~221.1, ~~218~~221.2, ~~218~~221.3, or ~~218~~221.4. These clear topcoats must be sold and used solely as part of a Faux Finish coating system, and must be labeled in accordance with Section 401.7.

2~~19~~22 **FIRE-RESISTIVE COATING:** A coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. ~~–~~The Fire Resistive category 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. ~~–~~Fire Resistive coatings ~~shall~~must be tested in accordance with ASTM E119-18ce1~~12a~~, incorporated by reference in Section 502.4.a. ~~–~~Fire Resistive coatings and testing agencies must be approved by building code officials.

22~~0~~3 **FLAT COATING:** A coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM D523-~~08,~~14 (2018), incorporated by reference in Section 502.4.b.

22~~1~~4 **FLOOR COATING:** 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 subject to foot traffic.

22~~2~~5 **FORM-RELEASE COMPOUND:** 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.

22~~3~~6 **GRAPHIC ARTS COATING OR SIGN PAINT:** A coating labeled and formulated for hand-application by artists using brush, airbrush, or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels.

22~~4~~7 **HIGH-TEMPERATURE COATING:** A high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

22~~5~~8 **INDUSTRIAL MAINTENANCE COATING:** 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 listed in Sections ~~225~~228.1 through ~~225~~228.5, and labeled as specified in Section 401.4:

22~~5~~8.1 Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation; or

22~~5~~8.2 Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions; or

22~~5~~8.3 Frequent exposure to temperatures above 121°C (250°F); or

22~~5~~8.4 Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents; or

22~~5~~8.5 Exterior exposure of metal structures and structural components.

229 **INTERIOR STAIN:** A stain labeled and formulated exclusively for use on interior surfaces.

230 **INTUMESCENT:** A material that swells as a result of heat exposure, thus increasing in volume and decreasing in density.

2~~26~~31 **LOW- SOLIDS COATING:** A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material as recommended for application by the manufacturer. The VOC content for Low Solids Coatings ~~shall~~must be calculated in accordance with Section 40~~2~~3.2.

2~~27~~32 **MAGNESITE CEMENT COATING:** A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

2~~28~~33 **MANUFACTURER'S MAXIMUM THINNING RECOMMENDATION:** The maximum recommendation for thinning that is indicated on the label or lid of the coating container.

234 **MARKET:** To facilitate sales through third party vendors including, but not limited to, catalog or ecommerce sales that bring together buyers and sellers. For the purposes of this rule, market does not mean to generally promote or advertise coatings.

2~~29~~35 **MASTIC TEXTURE COATING:** 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 (at least 0.010 inch) dry film thickness.

23~~0~~6 **MEDIUM DENSITY FIBERBOARD (MDF):** A composite wood product, panel, molding, or other building material composed of cellulosic fibers (usually wood) made by dry forming and pressing of a resinated fiber mat.

23~~1~~7 **METALLIC PIGMENTED COATING:** A coating that is labeled and formulated to provide a metallic appearance. Metallic Pigmented coatings must contain at least 48 grams of elemental metallic pigment (excluding zinc) per liter of coating as applied (at least 0.4 pounds per gallon), when tested in accordance with South Coast Air Quality Management District Method 318-95, incorporated by reference in Section 502.4.c. The Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers.

23~~2~~8 **MULTI-COLOR COATING:** A coating that is packaged in a single container and that is labeled and formulated to exhibit more than one color when applied in a single coat.

23~~3~~9 **NONFLAT COATING:** A coating that is not defined under any other definition in this rule 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 D523-~~08~~14 (2018), incorporated by reference in Section 502.4.b.

2~~34~~40 **NONFLAT – HIGH GLOSS COATING:** A nonflat coating that registers a gloss of 70 or greater on a 60 degree meter according to ASTM D523-~~08~~14 (2018), incorporated by reference in Section 502.4.b. Nonflat – High Gloss coatings must be labeled in accordance with Section 401.6. (This definition will sunset on the Contingency Measure Trigger Date.)

2~~35~~41 **PARTICLEBOARD:** A composite wood product panel, molding, or other building material composed of cellulosic material (usually wood) in the form of discrete particles, as distinguished from fibers, flakes, or strands, which are pressed together with resin.

2~~36~~42 **PEARLESCENT:** Exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

2~~37~~43 **PLYWOOD:** A panel product consisting of layers of wood veneers or composite core pressed together with resin. ~~-~~Plywood includes panel products made by either hot or cold pressing (with resin) veneers to a platform.

2~~38~~44 **POST-CONSUMER COATING:** Finished coatings generated by a business or consumer that have served their intended end uses, and are recovered from or otherwise diverted from the waste stream for the purpose of recycling.

2~~39~~45 **PRE-TREATMENT WASH PRIMER:** A primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM D1613-17~~06(2012)~~, incorporated by reference in Section 502.4.d, that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

24~~0~~6 **PRIMER, SEALER, AND UNDERCOATER:** A coating labeled and formulated for one or more of the following purposes:

24~~0~~6.1 To provide a firm bond between the substrate and the subsequent coatings; or
24~~0~~6.2 To prevent subsequent coatings from being absorbed by the substrate; or
24~~0~~6.3 To prevent harm to subsequent coatings by materials in the substrate; or
24~~0~~6.4 To provide a smooth surface for the subsequent application of coatings; or
24~~0~~6.5 To provide a clear finish coat to seal the substrate; or
24~~0~~6.6 To block materials from penetrating into or leaching out of a substrate.

24~~1~~7 **REACTIVE PENETRATING SEALER:** A clear or pigmented coating that is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including but not limited to, alkalis, acids, and salts. ~~-~~Reactive Penetrating Sealers must penetrate into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. ~~-~~Reactive Penetrating Sealers line the pores of concrete and masonry substrates with a hydrophobic coating, but do not form a surface film. ~~-~~Reactive Penetrating Sealers must meet all of the following criteria:

24~~1~~7.1 The Reactive Penetrating Sealer must improve water repellency at least 80 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards, incorporated by reference in Section 502.4.r: ASTM C67~~-12~~/C67M-18, ASTM C97/C97M-~~09~~18, or ASTM C140/C140M-18a~~13~~; and

24~~1~~7.2 The Reactive Penetrating Sealer must provide a breathable waterproof barrier for concrete or masonry surfaces that does not ~~reduce the~~prevent or substantially retard water vapor transmission~~ rate by more than 2 percent after application on a concrete or masonry substrate~~. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M-~~12~~16 or ASTM D6490-99 (2014), incorporated by reference in Section 502.4.s; and

24~~1~~7.3 Products labeled and formulated for vehicular traffic surface chloride screening applications must meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), incorporated by reference in Section 502.4.t.

Reactive Penetrating Sealers must be labeled in accordance with Section 401.8.

24~~2~~8 **RECYCLED COATING:** An architectural coating formulated such that it contains a minimum of 50% by volume post-consumer coating, with a maximum of 50% by volume secondary industrial materials or virgin materials.

24~~3~~9 **RESIDENTIAL:** Areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

2~~44~~50 **ROOF COATING:** 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.

2~~45~~51 **RUST PREVENTATIVE COATING:** A coating formulated to prevent the corrosion of metal surfaces for one or more of the following applications:

2~~45~~51.1 Direct-to-metal coating; or

2~~45~~51.2 Coating intended for application over rusty, previously coated surfaces.

The Rust Preventative category does not include the following:

2~~45~~51.3 Coatings that are required to be applied as a topcoat over a primer; or

2~~45~~51.4 Coatings that are intended for use on wood or any other non-metallic surface.

Rust Preventative coatings are for metal substrates only and must be labeled as such, in accordance with the labeling requirements in Section 401.5.

2~~46~~52 **SECONDARY INDUSTRIAL MATERIALS:** Products or by-products of the paint manufacturing process that are of known composition and have economic value but can no longer be used for their intended purpose.

2~~47~~53 **SEMITRANSPARENT COATING:** A coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.

2~~48~~54 **SHELLAC:** A clear or opaque coating formulated solely with the resinous secretions of the lac beetle (Laciffer lacca), and formulated to dry by evaporation without a chemical reaction.

2~~49~~55 **SHOP APPLICATION:** 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).

25~~0~~6 **SOLICIT:** To require for use or to specify, by written or oral contract.

25~~1~~7 **SPECIALTY PRIMER, SEALER AND UNDERCOATER:**

~~251.2~~ A coating that is formulated for application to a substrate to block water-soluble stains resulting from: fire damage; smoke damage; or water damage. Effective on and after the Contingency Measure Trigger Date, Specialty Primers, Sealers, and Undercoaters must be labeled in accordance with Section 401.9.

25~~2~~8 **STAIN:** A semitransparent or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

25~~3~~9 **STONE CONSOLIDANT:** A coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. ~~-~~Stone Consolidants must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. ~~-~~Stone Consolidants must be specified and used in accordance with ASTM E2167-01 (2008), incorporated by reference in Section 502.4.u.

Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in Section 401.~~9~~10.

2~~54~~60 **SWIMMING POOL COATING:** A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. ~~-~~Swimming pool coatings include coatings used for swimming pool repair and maintenance.

261 **TILE AND STONE SEALERS:** A clear or pigmented sealer that is used for sealing tile, stone or grout to provide resistance against water, alkalis, acids, ultraviolet light or straining and which meet one of the following subcategories:

261.1 Penetrating sealers are polymer solutions that cross-link in the substrate and must meet the following criteria:

a. A fine particle structure to penetrate dense tile such as porcelain with absorption as low as 0.10 percent per ASTM C373-18, ASTM C97/C97M-18, or ASTM C642-13, incorporated by reference in Section 502.4.y;

b. Retain or increase static coefficient of friction per ANSI A137.1 (2012), incorporated by reference in Section 502.4.z;

c. Not create a topical surface film on the tile or stone; and

d. Allow vapor transmission per ASTM E96/E96M-16, incorporated by reference in Section 502.4.aa.

261.2 Film forming sealers which leave a protective film of the surface.

2~~55~~62 **TINT BASE:** An architectural coating to which colorant is added after packaging in sale units to produce a desired color.

2~~56~~63 **TRAFFIC MARKING COATING:** 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. Effective on and after the Contingency Measure Trigger Date, this coating category also includes Methacrylate Multicomponent Coatings used as traffic marking coatings. The VOC content of Methacrylate Multicomponent Coatings used as traffic marking coatings must by analyzed by the procedures in 40 CFR Part 59, Subpart D, Appendix A, incorporated by reference in Section 502.4.j.

2~~57~~64 **TUB AND TILE REFINISH COATING:** A clear or opaque coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish coatings must meet all of the following criteria:

2~~57~~64.1 The coating must have a scratch hardness of 3H or harder and a gouge harness of 4H or harder. This must be determined on bonderite 1000, in accordance with ASTM D3363-05 (2011)e2, incorporated by reference in Section 502.4.m; and

2~~57~~64.2 The coating must have a weight loss of 20 milligrams or less after 1000 cycles. This must be determined with CS-17 wheels on bonderite 1000, in accordance with ASTM D4060-~~10~~14, incorporated by reference in Section 502.4.n; and

2~~57~~64.3 The coating must withstand 1000 hours or more of exposure with few or no #8 blisters. This must be determined on unscribed bonderite, in accordance with ASTM D4585/D4585M-18~~07~~, and ASTM D714-~~02~~ (~~2009~~2017), incorporated by reference in Section 502.4.o; and

2~~57~~64.4 The coating must have an adhesion rating of 4B or better after 24 hours of recovery. This must be determined on unscribed bonderite, in accordance with ASTM D4585/D4585M-18~~07~~ and ASTM D3359-17~~09e2~~, incorporated by reference in Section 502.4.l.

2~~58~~65 **VENEER:** Thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.

2~~59~~66 **VIRGIN MATERIALS:** Materials that contain no post-consumer coatings or secondary industrial materials.

26~~0~~7 **VOLATILE ORGANIC COMPOUND (VOC):** For the purposes of this rule, "volatile organic compound" has the same meaning as in Rule 101—GENERAL PROVISIONS AND DEFINITIONS.

26~~1~~8 **VOC ACTUAL:** The weight of VOC per volume of coating or colorant, as calculated by the procedure specified in Section 40~~2~~3.2.

26~~2~~9 **VOC CONTENT:** The weight of VOC per volume of coating~~.~~ or colorant. VOC Content is VOC Regulatory, as defined in Section 2~~63~~70, for all coatings or colorants except those in the Low Solids category. ~~-~~For coatings in the Low Solids category, the VOC Content is VOC Actual, as defined in Section 26~~1~~8. If the coating is a multi-component product, the VOC Content is VOC Regulatory as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.

2~~63~~70 **VOC REGULATORY:** VOC Regulatory is the weight of VOC per volume of coating or colorant, less the volume of water and exempt compounds, as calculated by the procedure specified in Section 40~~2~~3.1.

2~~64~~71 **WATERPROOFING MEMBRANE:** A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into the substrate. Waterproofing Membranes are intended for the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials. ~~-~~Waterproofing Membranes must meet the following criteria:

2~~64~~71.1 The coating must be applied in a single coat of at least 25 mils (at least 0.025 inch) dry film thickness; and

2~~64~~71.2 The coating must meet or exceed the requirements contained in ASTM C836/C836M-18~~12~~, incorporated by reference in Section 502.4.p.

The Waterproofing Membrane category does not include topcoats that are included in the Concrete/Masonry Sealer category (e.g., parking deck topcoats, pedestrian deck topcoats, etc.).

2~~65~~72 **WOOD COATINGS:** Coatings labeled and formulated for application to wood substrates only. The Wood Coatings category includes the following clear and semitransparent coatings: lacquers; varnishes; sanding sealers; penetrating oils; clear stains; wood conditioners used as undercoats; and wood sealers used as topcoats. ~~-~~The Wood Coatings category also includes the following opaque wood coatings: opaque lacquers; opaque sanding sealers; and opaque lacquer undercoaters. ~~-~~The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or coatings intended for substrates other than wood.

Wood Coatings must be labeled “For Wood Substrates Only”, in accordance with Section 401.1~~0~~1.

2~~66~~73 **WOOD PRESERVATIVE:** A coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code (U.S.C.) Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

2~~67~~74 **WOOD SUBSTRATE:** A substrate made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with exposed wood grain. Wood Products do not include items comprised of simulated wood.

2~~68~~75 **ZINC-RICH PRIMER:** A coating that meets all of the following specifications:

2~~68~~75.1 The coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and

2~~68~~75.2 The coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings; and

2~~68~~75.3 The coating is intended for professional use only and is labeled as such,

in accordance with the labeling requirements in Section 401.1~~1~~2.

300 STANDARDS

301 **VOC CONTENT LIMITS FOR COATINGS:** Except as provided in Sections 302 and 303, no person ~~shall~~ may:

301.1 Manufacture, blend, or repackage for sale within the District; or

301.2 Supply, sell, market or offer for sale within the District; or

301.3 Solicit for application or apply within the District, any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1. ~~-~~Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum recommendation, excluding any colorant added to tint bases.

Table 1

Coating Category[2]	VOC Content Limit[1], g/L	
	Current	Effective on and after Contingency Measure Trigger Date
Flat Coatings	50	
Nonflat Coatings	100	50
Nonflat – High Gloss Coatings	150	(Eliminated)[3]
Specialty Coatings:		
Aluminum Roof Coatings	400	100
Basement Specialty Coatings	400	
Bituminous Roof Coatings	50	
Bituminous Roof Primers	350	
Bond Breakers	350	
Building Envelope Coatings[4]		50
Concrete Curing Compounds	350	
Concrete/Masonry Sealers	100	
Driveway Sealers	50	
Dry Fog Coatings	150	50
Faux Finishing Coatings	350	
Fire Resistive Coatings	350	150
Floor Coatings	100	50
Form-Release Compounds	250	100
Graphic Arts Coatings (Sign Paints)	500	
High Temperature Coatings	420	
Industrial Maintenance Coatings	250	
Low Solids Coatings[1]	120	
Magnesite Cement Coatings	450	
Mastic Texture Coatings	100	
Metallic Pigmented Coatings	500	
Multi-Color Coatings	250	
Pre-Treatment Wash Primers	420	
Primers, Sealers, and Undercoaters	100	
Reactive Penetrating Sealers	350	
Recycled Coatings	250	
Roof Coatings	50	
Rust Preventative Coatings	250	
Shellacs: Clear Opaque	 730 550	

Coating Category[2]	VOC Content Limit[1], g/L	
	Current	Effective on and after Contingency Measure Trigger Date
Specialty Primers, Sealers and Undercoaters	100	
Stains Exterior/Dual Interior Only	 Stains (250) Stains (250)	 100 250
Stone Consolidants	450	
Swimming Pool Coatings	340	
Tile and Stone Sealers[4]		100
Traffic Marking Coatings	100	
Tub and Tile Refinish Coatings	420	
Waterproofing Membranes	250	100
Wood Coatings	275	
Wood Preservatives	350	
Zinc-Rich Primers	340	

[1] Limits are expressed as VOC Regulatory, except for Low Solids Coatings. Limits for Low Solids Coatings are expressed as VOC Actual.

[2] If the coating does not meet any of the definitions for the specialty coating categories listed in Table 1, that coating will be classified as Flat, Nonflat or Nonflat - High Gloss based on its gloss level, and the corresponding VOC content limit will apply.

[3] This definition will sunset on the Contingency Measure Trigger Date, and Nonflat – High Gloss Coatings will coating meet the definition of Nonflat Coatings.

[4] Prior to the Contingency Measure Trigger Date, a specific Building Envelope Coating or Tile and Stone Sealer will be classified based on the current specialty coating definition it meets, or, if it doesn't meet any current specialty coating definition, it will be classified as Flat, Nonflat or Nonflat - High Gloss, based on its gloss level, and the corresponding VOC content limit will apply.

302 **MOST RESTRICTIVE VOC LIMITS:** If a coating meets the definition in Section 200 for one or more specialty coating categories that are listed in Table 1, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat-High Gloss coatings, but is required to meet the VOC limit for the applicable specialty coating listed in Table 1.

With the exception of the specialty coating categories specified in Sections 302.1 through 302.12, if a coating is recommended for use in more than one of the specialty coating categories listed in Table 1, the most restrictive (or lowest) VOC content limit ~~shall~~ applies~~y~~. This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf.

302.1 Metallic pigmented coatings.
302.2 Shellacs.
302.3 Pretreatment wash primers.
302.4 Industrial maintenance coatings.
302.5 Low-solids coatings.
302.6 Wood preservatives.
302.7 High temperature coatings.
302.8 Bituminous roof primers.
302.9 Specialty primers, sealers, and undercoaters.
302.10 Aluminum roof coatings.
302.11 Zinc-rich Primers.
302.12 Wood coatings.

303 **SELL-THROUGH PROVISIONS~~OF COATINGS~~:**

303.1 A coating manufactured prior to ~~March 24, 2016~~the Contingency Measure Trigger Date ~~may~~ may be sold, supplied, or offered for sale until ~~March 24, 2019~~one year after the Contingency Measure Trigger Date, provided the coating complies with the version of RULE 442 – ARCHITECTURAL COATINGS, effective ~~January 1, 2004~~September 24, 2015 (incorporated by reference). This version of the rule is posted on the District's web site, www.airquality.org. In addition, such a coating may be applied at any time, both before and after ~~March 24, 2016~~the Contingency Measure Trigger Date. This Sub~~S~~section 303.1 does not apply to any coating supplied in a container that does not display the date or date-code required by Section 401.1.

303.2 A colorant manufactured prior to the Contingency Measure Trigger Date may be sold, supplied, or offered for sale until one year after the Contingency Measure Trigger Date. In addition, such a colorant may be applied at any time, both before and after the Contingency Measure Trigger Date. This Subsection 303.2 does not apply to any colorant supplied in a container that does not display the date or date-code required by Section 402.1.

304 **PAINTING PRACTICES:** 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~~must be closed when not in use. These architectural coating 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~~must also be closed when not in use.

305 **THINNING:** No person who applies or solicits the application of any architectural coating ~~shall~~ may apply a coating that is thinned to exceed the applicable VOC limit specified in Table 1 in Section 301.

306 **COATINGS NOT LISTED IN SECTION 301:** For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 1 in Section 301, the VOC content limit ~~shall~~must be determined by classifying the coating as a Flat, Nonflat, or Nonflat - High Gloss coating, based on its gloss, as defined in Sections 225~~4~~3, 24~~0~~39 and 24~~1~~0 and the corresponding Flat, Nonflat, or Nonflat – High Gloss Coating VOC limit in Table 1 ~~shall~~ applies~~y~~.

307 **VOC CONTENT LIMITS FOR COLORANTS:**

307.1 Effective on and after the Contingency Measure Trigger Date, no person within the District may, at the point of sale of any architectural coating subject to Section 301, add to such coating any colorant that contains VOC, expressed as VOC Regulatory, in excess of the corresponding applicable VOC limit specified in Table 2. The point of sale includes retail outlets that add colorant to a coating container to obtain a specific color.

307.2 Colorants added at the factory or at the job site are not subject to the VOC limits in Table 2. In addition, containers of colorant sold at the point of sale for use in the field or on a job site are also not subject to the VOC limits in Table 2.

Table 2

Colorant Added To:	VOC Content Limit[1], g/L, Effective on and after Contingency Measure Trigger Date
Architectural Coatings, excluding Industrial Maintenance Coatings	50
Solvent-Based Industrial Maintenance Coatings	600
Waterborne Industrial Maintenance Coatings	50
Wood Coatings	600
[1] Limits are expressed as VOC Regulatory.	

308 **EARLY COMPLIANCE OPTION:** Prior to the Contingency Measure Trigger Date, any coating that meets all the requirements of the rule that will be in effect on and after the Contingency Measure Trigger Date is considered to be in compliance with this rule.

400 ADMINISTRATIVE REQUIREMENTS

401 **CONTAINER LABELING REQUIREMENTS FOR COATINGS:** Each manufacturer of any architectural coating subject to this rule ~~shall~~must display the information listed in Sections 401.1 through 401.1~~1~~2 on the coating container (or label) in which the coating is sold or distributed.

401.1 **DATE CODE:** The date the coating was manufactured, or a date code representing the date, ~~shall~~must be indicated on the label, lid, or bottom of the container. ~~-~~If the manufacturer uses a date code for any coating, the manufacturer ~~shall~~must file an explanation of each code with the Executive Officer of the California Air Resources Board, and such explanation ~~shall~~must be made available to the Air Pollution Control Officer immediately upon request.

401.2 **THINNING RECOMMENDATIONS:** A statement of the manufacturer's recommendation regarding thinning of the coating ~~shall~~must 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 must specify that the coating is to be applied without thinning.

401.3 **VOC CONTENT:**~~—~~ Each container of any coating subject to this rule ~~shall~~must display one of the following values in grams of VOC per liter of coating:

a. Maximum VOC Content as determined from all potential product formulations; or

b. VOC Content as determined from actual formulation data; or

c. VOC Content as determined using the test methods in Section 502.1.

VOC Content, as defined in Section 26~~2~~9, ~~shall~~must be determined as specified in Section 40~~2~~3.

If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer.

If the coating is a multi-component product, the container must display the VOC Content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other

ingredients that generate ethanol or other VOCs during the curing process, the VOC Content must include the VOCs emitted during curing.

401.4 **INDUSTRIAL MAINTENANCE COATINGS:** In addition to the information specified in Sections 401.1, 401.2 and 401.3, each manufacturer of any industrial maintenance coating subject to this rule ~~shall~~must display on the label or lid of the container in which the coating is sold or distributed one or more of the descriptions listed in Sections 401.4.a through 401.4.c.

a. "For industrial use only."

b. "For professional use only."

c. "Not for residential use" or "Not intended for residential use." Section 401.4.c. will sunset on the Contingency Measure Trigger Date.

401.5 **RUST PREVENTATIVE COATINGS:** The labels of all rust preventative coatings ~~shall~~must prominently display the statement "For Metal Substrates Only."

401.6 **NON-FLAT – HIGH GLOSS COATINGS:** The labels of all non-flat – high gloss coatings ~~shall~~must prominently display the words "High Gloss." This section will sunset on the Contingency Measure Trigger Date.

401.7 **FAUX FINISHING COATINGS:** The labels of all clear topcoat Faux Finishing coatings ~~shall~~must prominently display the statement "This product can only be sold and used as part of a Faux Finishing coating system."

401.8 **REACTIVE PENETRATING SEALERS:** The labels of all Reactive Penetrating Sealers ~~shall~~must prominently display the statement "Reactive Penetrating Sealer."

401.9 **SPECIALTY PRIMERS, SEALERS, AND UNDERCOATERS:** Effective on and after the Contingency Measure Trigger Date, the labels of all specialty primers, sealers, and undercoaters must prominently display the statement "Specialty Primer, Sealer, Undercoater."

401.~~9~~10 **STONE CONSOLIDANTS:** The labels of all Stone Consolidants ~~shall~~must prominently display the statement "Stone Consolidant – For Professional Use Only."

401.~~10~~11 **WOOD COATINGS:** The labels of all Wood Coatings ~~shall~~must prominently display the statement "For Wood Substrates Only."

401.~~11~~12 **ZINC RICH PRIMERS:** The labels of all Zinc Rich Primers ~~shall~~must prominently display one or more of the descriptions listed in Sections 401.~~11~~12.a through 401.~~11~~12.c.

a. "For industrial use only." This section will sunset on the Contingency Measure Trigger Date.

b. "For ~~p~~Professional ~~u~~Use ~~o~~Only."

c. "Not for residential use" or "Not intended for residential use." This section will sunset on the Contingency Measure Trigger Date.

402 CONTAINER LABELING REQUIREMENTS FOR COLORANTS: Effective on and after the Contingency Measure Trigger Date, each manufacturer of any colorant subject to this rule must display the information listed in Sections 402.1 and 402.2 on the container (or label) in which the colorant is sold or distributed,

402.1 **DATE CODE:** The date the colorant was manufactured, or a date code representing the date, must be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any colorant, the manufacturer must file an explanation of each code with the Executive Officer of the California Air Resources Board, and such explanation must be made available to the Air Pollution Control Officer immediately upon request.

402.2 **VOC CONTENT:** Each container of any colorant subject to this rule must display one of the following values in grams of VOC per liter of colorant:

a. Maximum VOC Content as determined from all potential product formulations; or

b. VOC Content as determined from actual formulation data; or

c. VOC Content as determined using the test methods in Section 502.1. VOC Content, as defined in Section 269, must be determined as specified in Section 403.

If the colorant contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.

402403 **CALCULATION OF VOC CONTENT:** For the purpose of determining compliance with the VOC content limits in Table 1 in Section 301 or Table 2 in Section 307, the VOC content of a coating or colorant shallmust be determined by using the procedures described in Sections 402403.1 or 402213.2, as appropriate. The VOC content of a tint base shallmust be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC Content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC Content must include the VOCs emitted during curing.

402403.1 VOC Regulatory: VOC Regulatory, as defined in Section 263270, shallmust be determined using the following equation:

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

Where:

VOC Regulatory	=	grams of VOC per liter of coating or colorant, excluding water and exempt compounds, (also known as "Coating VOC")
W_s	=	weight of all volatiles, in grams
W_w	=	weight of water, in grams
W_{ec}	=	weight of exempt compounds, in grams
V_m	=	volume of coating or colorant, in liters
V_w	=	volume of water, in liters
V_{ec}	=	volume of exempt compounds, in liters

402403.2 VOC Actual: VOC Actual, as defined in Section 2618, shallmust be determined using the following equation:

$$VOC\ Actual = (W_s - W_w - W_{ec}) / (V_m)$$

Where:

VOC Actual	=	grams of VOC per liter of coating or colorant, (also known as "Material VOC")
W_s	=	weight of all volatiles, in grams
W_w	=	weight of water, in grams
W_{ec}	=	weight of exempt compounds, in grams
V_m	=	volume of coating or colorant, in liters

500 MONITORING AND RECORDS

501 **REPORTING REQUIREMENTS:**

501.1 **ARB REQUEST OF SALES DATA:** A responsible official from each manufacturer shallmust upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. The responsible official shallmust within 180 days provide 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 coating product as it appears on the label and the applicable coating category;
d. whether the product is marketed for interior or exterior use or both;
e. the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);
f. the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum 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 names and CAS numbers of the VOC constituents in the product;
h. the names and CAS numbers of any compound in the product specifically exempted from the VOC definition, as referenced in Section 2~~17~~20;
i. whether the product is marketed as solvent-borne, waterborne, or 100% solids;
j. description of resin or binder in the product;
k. whether the coating is single-component or multi-component product;
l. the density of the product in pounds per gallon;
m. the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition, as referenced in Section 2~~17~~20;
n. the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition, as referenced in Section 2~~17~~20.

501.2 All sales data listed under Section 501.1 ~~shall~~must be maintained by the responsible official for a minimum of three years. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information ~~shall~~ will be handled in accordance with the procedures specified in Title 17, California Code of Regulations Sections 91000-91022.

501.3 **DISTRICT INFORMATION REQUEST:** Section 501.1 does not limit the Air Pollution Control Officer's authority to request any manufacturer, supplier, wholesaler, or distributor to provide information pursuant to California Health and Safety Code Sections 40701(g) and 42303.2.

502 TESTING PROCEDURES:

502.1 **VOC CONTENT:** The VOC content of coatings or colorants must be determined by the following:

a. To determine the physical properties of a coating or colorant in order to perform the calculation in Section 402, the reference method for VOC content is U.S. Environmental Protection Agency Method 24, incorporated by reference in Section 502.4.h, except as provided in Sections 502.2 and 502.3.
b. An alternative method to determine the VOC content of coatings is South Coast Air Quality Management District Method 304-91 (Revised 1996), incorporated by reference in Section 502.4.i.
c. The exempt compounds content ~~shall~~must be determined by South Coast Air Quality Management District Method 303-91 (Revised ~~1993~~1996), BAAQMD Method 43 (Revised ~~1996~~2005), or BAAQMD Method 41 (Revised ~~1995~~2005), as applicable, incorporated by reference in Sections 502.4.g, 502.4.e, and 502.4.f, respectively.
d, To determine the VOC content of a coating or colorant, the manufacturer may use U.S. Environmental Protection Agency Method 24, or an alternative method as provided in Section 502.2, formulation data, or any other reasonable means for predicting that the coating or colorant has been formulated as intended (e.g. quality assurance checks, recordkeeping). However, if there are any inconsistencies between the

results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 502.2.

e. To determine the VOC content of a coating or colorant with a VOC content of 150 g/l or less, the manufacturer may use SCAQMD Method 313-91, incorporated by reference in Section 502.4.ab, ASTM D6886-18, incorporated by reference in Section 502.4.ac, or any other reasonable means for predicting that the coating or colorant has been formulated as intended (e.g., quality assurance checks, record keeping).

f. The District Air Pollution Control Officer may require the manufacturer to conduct a Method 24 analysis.

502.2 **ALTERNATIVE TEST METHODS:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 502.1, after review and approved in writing by the staffs of the District, the California Air Resources Board, and the U.S. Environmental Protection Agency, may also be used.

502.3 **METHACRYLATE TRAFFIC MARKING COATINGS:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings ~~shall~~must be conducted according to a modification of U.S. Environmental Protection Agency Method 24 (40 CFR 59, ~~s~~Subpart D, Appendix A), incorporated by reference in Section 502.4.~~m~~j. ~~-~~This method has not been approved for methacrylate multicomponent coatings used for purposes other than as traffic marking coatings or for other classes of multicomponent coatings.

502.4 **TEST METHODS:** The following test methods are incorporated by reference herein, and ~~shall~~must be used to test coatings subject to provisions of this rule:

a. **Fire Resistance Rating:** The fire resistance rating of a fire-resistive coating ~~shall~~must be determined by ASTM E119-~~12a~~18ce1, "Standard Test Methods for Fire Tests of Building Construction and Materials" ~~(July 2012),~~ (see Section 2~~19~~22, Fire-Resistive Coating).

b. **Gloss Determination:** The gloss of a coating ~~shall~~must be determined by ASTM D 523-14 (2018)~~08~~, "Standard Test Method for Specular Gloss" (~~June 2008), (~~see Sections 22~~0~~3, 23~~3~~9, and 23~~34~~40, Flat Coating, Nonflat Coating, and Nonflat-High Gloss Coating).

c. **Metal Content of Coatings:** The metallic content of a coating ~~shall~~must be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," South Coast Air Quality Management District "Laboratory Methods of Analysis for Enforcement Samples," (see Sections 203, 2~~18~~21, and 23~~1~~7, Aluminum Roof, Faux Finishing, and Metallic Pigmented Coatings).

d. **Acid Content of Coatings:** The acid content of a coating ~~shall~~must be determined by ASTM D1613-~~06(2012),~~17, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products~~" (June 2012),~~", (see Section 2~~39~~45, Pre-Treatment Wash Primer).

e. **Exempt Compounds – Siloxanes:** Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, ~~shall~~must be analyzed as exempt compounds for compliance with Section 502 by Bay Area Air Quality Management District Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," Bay Area Air Quality Management District Manual of Procedures, Volume III, adopted 11/6/96, (see Section 26~~0~~7, Volatile Organic Compound~~s~~ and Section 502.1.c).

f. **Exempt Compounds – Parachlorobenzotrifluoride (PCBTF):** The exempt compound parachlorobenzotrifluoride, ~~shall~~must be analyzed as an exempt compound for compliance with Section 502 by Bay Area Air Quality Management District Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials

Containing Parachlorobenzotrifluoride, Bay Area Air Quality Management District Manual of Procedures, Volume III, adopted 12/20/95, (see Section 260~~0~~7, Volatile Organic Compound and Section 502.1.c).

g. **Exempt Compounds:** The content of compounds exempt under U.S. Environmental Protection Agency Method 24 ~~shall~~must be analyzed by South Coast Air Quality Management District Method 303-91 (Revised ~~1993~~1996), "Determination of Exempt Compounds," South Coast Air Quality Management District "Laboratory Methods of Analysis for Enforcement Samples, (see Section 260~~0~~7, Volatile Organic Compound and Section 502.1c.)

h. **VOC Content of Coatings:** The VOC content of a coating ~~shall~~must be determined by U.S. Environmental Protection Agency Method 24 as it exists in ~~a~~Appendix A of 40 ~~Code of Federal Regulations (~~CFR~~)~~ ~~p~~Part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings," (see Section 502.1.a)

i. **Alternative VOC Content of Coatings:** The VOC content of coatings may be analyzed either by U.S. Environmental Protection Agency Method 24 or South Coast Air Quality Management District Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," South Coast Air Quality Management District "Laboratory Methods of Analysis for Enforcement Samples," (see Section 502.1.b)

j. **Methacrylate Traffic Marking Coatings:** The VOC content of methacrylate multicomponent coatings used as traffic marking coatings ~~shall~~must be analyzed by the procedures in 40 CFR ~~p~~Part 59, ~~s~~Subpart D, ~~a~~Appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings, "(see Section 502.3).

k. **Hydrostatic Pressure for Basement Specialty Coatings**: ASTM D7088-~~08~~17, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry~~" (June 2008),~~", (see Section 206.1, Basement Specialty Coating).

l. **Tub and Tile Refinish Coating Adhesion:** ASTM D4585-~~07~~/D4585-18, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-~~09e2~~17, "Standard Test Methods for Measuring Adhesion by Tape Test"~~ (June 2009),~~ (see Section 2~~57~~64.4, Tub and Tile Refinish Coating).

m. **Tub and Tile Refinish Coating Hardness**: ASTM D3363-05 (2011)e2, "Standard Test Method for Film Hardness by Pencil Test~~" (June 2011),~~", (see Section 2~~57~~64.1, Tub and Tile Refinish Coating).

n. **Tub and Tile Refinish Coating Abrasion Resistance**: ASTM D4060-~~10~~14, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser"~~ (February 2010),~~ (see Section 2~~57~~64.2, Tub and Tile Refinish Coating).

o. **Tub and Tile Refinish Coating Water Resistance**: ASTM D4585/D4585M-18~~-07~~, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" ~~(June 2007),~~ and ASTM D714-02 (~~2009~~2017), "Standard Test Method for Evaluating Degree of Blistering of Paints"~~ (July 2009),~~ (see Section ~~257~~264.3, Tub and Tile Refinish Coating).

p. **Waterproofing Membrane**: ASTM C836/C836M-18~~12~~, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course" (~~May 2012), (~~see Section 2~~64~~72, Waterproofing Membrane).

q. **Mold and Mildew Growth for Basement Specialty Coatings**: ASTM D3273-~~12~~16, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" ~~(February 2012)~~ and ASTM D3274-09~~e1~~ (2017), "Standard Test Method for

Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth, or Soil and Dirt Accumulation" (~~March 2009), (~~see Section 206.2, Basement Specialty Coating).

r. **Reactive Penetrating Sealer Water Repellency:** ASTM C67-~~12~~/C67M-18, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile~~" (June 2012);~~"; or ASTM C97/C97M-~~09~~18, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone~~" (April 2009);~~"; or ASTM C140-~~13~~/C140M-18a, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units"~~ (March 2013),~~ (see Section 24~~1~~7.1, Reactive Penetrating Sealer).

s. **Reactive Penetrating Sealer Water Vapor Transmission:** ASTM E96/E96M-~~12~~16, "Standard Test Method for Water Vapor Transmission of Materials~~" (December 2012),~~"; or ASTM D6490-99, "Standard Test Method for Water Vapor Transmission of Nonfilm Forming Treatments Used on Cementitious Panels" (see Section 24~~1~~7.2, Reactive Penetrating Sealer).

t. **Reactive Penetrating Sealer - Chloride Screening Applications:** National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures" (see Section 24~~1~~7.3, Reactive Penetrating Sealer).

u. **Stone Consolidants:** ASTM E2167-01 (2008), "Standard Guide for Selection and Use of Stone Consolidants" (~~September 2008), (~~see Section 25~~3~~9, Stone Consolidant).

v. **Building Envelope Coating Air Permeance of Building Materials:** ASTM E2178-13, "Standard Test Method for Air Permeance of Building Materials" (see Section 212.1, Building Envelope Coating).

w. **Building Envelope Coating Water Penetration Testing:** ASTM E331-00 (2016), "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference" (see Section 212.2.a, Building Envelope Coating).

x. **Building Envelope Coating Water Vapor Transmission:** ASTM E96/E96M-16, "Standard Test Methods for Water Vapor Transmission of Materials" (see Section 212.2.b, Building Envelope Coating)

y. **Tile and Stone Sealers Absorption:** ASTM C373-18, "Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tile and Glass Tiles and Boil Method for Extruded Ceramic Tiles and Non-tile Fired Ceramic Whiteware Products"; or ASTM C97/C97M-18, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C642-13, "Standard Test Method for Density, Absorption, and Voids in Hardened Concrete" (see Section 261.1.a, Tile and Stone Sealers).

z. **Tile and Stone Sealers – Static Coefficient of Friction:** ANSI A137.1 (2012), "American National Standard of Specifications for Ceramic Tile" (see Section 261.1.b, Tile and Stone Sealers).

aa. **Tile and Stone Sealers Water Vapor Transmissions:** ASTM E96/E96M-16, "Standard Test Methods for Water Vapor Transmission of Materials" (see Section 261.1.d, Tile and Stone Sealers).

ab. **VOC Content of Coatings:** South Coast AQMD Method 313-91, "Determination of Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometry (GS/MS)" (see Section 502.1.e, VOC Content).

ac. **VOC Content of Coatings:** ASTM D6886-18, "Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography" (see Section 502.1.e, VOC Content).