

26.11.19.08

.08 Metal Parts and Products Coating.

A. Definitions. In this regulation, the following terms have the meanings indicated:

- (1) "Adhesion promoter" means a thin coating applied to a substrate to:
 - (a) Promote wetting; and
 - (b) Form a chemical bond with the subsequently applied material.
- (2) "Air-dried coating" means a coating that is cured at a temperature below 90°C (194°F).
- (3) "Baked coating" means a coating that is cured at a temperature at or above 90°C (194°F).
- (4) "Camouflage coating" means a coating used, principally by the military, to conceal equipment from detection.
- (5) "Electric-insulating and thermal-conducting coating" means a coating that displays an electrical insulation of at least one thousand (1,000) volts DC per mil on a flat test plate and an average thermal conductivity of at least twenty-seven hundredths British thermal units (0.27 Btu) per hour-foot-degree-Fahrenheit.
- (6) "Electric-insulating varnish" means a non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.
- (7) "Etching filler" means a coating that contains less than 23 percent solids by weight and at least 1/2-percent acid by weight and is used instead of applying a pretreatment coating followed by a primer.
- (8) "Extreme high gloss coating" means any coating which achieves at least 95 percent reflectance on a 60° meter when tested by ASTM Method D 523-89.
- (9) "Extreme performance coating" means a coating used on a metal surface where the coated surface is, in its intended use, subject to the following:
 - (a) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution;
 - (b) Repeated exposure to temperatures in excess of 250°F;
 - (c) A temperature of at least 400°F during normal use; or
 - (d) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.
- (10) "Heat-resistant coating" means a coating that must withstand a temperature of at least 400°F during normal use.
- (11) "High performance architectural coating" means a coating used to protect architectural subsections and which meets the requirements of the American Architectural Manufacturer's Association publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels).
- (12) "High temperature coating" means a coating that is certified to withstand a temperature of 1000°F for 24 hours.
- (13) "Magnetic data storage disk coating" means a coating used on a metal disk which stores data magnetically.
- (14) "Metal furniture coating" means coating the surface of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.
- (15) Metal Parts and Products Coating.

- (a) "Metal parts and products coating" means coating the surface of any metal part or product which will be assembled with other metal, wood, fabric, plastic, or glass parts.
- (b) "Metal parts and products coating" does not include metal furniture coatings.
- (16) "Metallic coating" means a coating which contains more than 5 grams of metal particles per liter of coating, as applied.
- (17) "Military specification coating" means a coating which has a formulation approved by a United States Military Agency for use on military equipment.
- (18) "Mold-seal coating" means the initial coating applied to a new mold or a repaired mold to provide a smooth surface and prevent products from sticking to the mold.
- (19) "Multi-component coating" means a coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.
- (20) "One-component coating" means a coating that is ready for application as it comes out of its container to form an acceptable dry film, except for the addition of a thinner to reduce the viscosity.
- (21) "Pan-backing coating" means a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.
- (22) "Prefabricated architectural component coating" means coatings applied to metal parts and products which are to be used as an architectural structure.
- (23) "Pretreatment coating" means a coating which:
- (a) Contains no more than 12 percent solids, by weight;
 - (b) Contains at least 1/2-percent acid, by weight;
 - (c) Is used to provide surface etching; and
 - (d) Is applied directly to metal surfaces to provide corrosion resistance, adhesion of subsequent coatings, and ease of stripping.
- (24) "Repair coating" means a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.
- (25) "Robotic application of heavy-duty engine coatings" means coatings applied to heavy-duty engines by a robotic spray system within a closed paint enclosure at a facility manufacturing heavy-duty engines.
- (26) "Safety-indicating coating" means a coating which changes physical characteristics, such as color, to indicate unsafe conditions.
- (27) "Silicone release coating" means any coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans.
- (28) "Solar-absorbent coating" means a coating which has as its prime purpose the absorption of solar radiation.
- (29) "Stencil coating" means an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products.
- (30) "Touch-up coating" means a coating used to cover minor coating imperfections appearing after the main coating operation.
- (31) "Vacuum-metalizing coating" means the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film with the help of metalizing/physical vapor deposition (PVD) process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

B. Incorporation by Reference. In this regulation, the following documents are incorporated by reference:

(1) AAMA 2604-05 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels; and

(2) AAMA 2605-05 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

C. Applicability and Exemptions.

(1) This regulation applies to a person who owns or operates:

(a) A metal furniture coating installation; or

(b) A metal parts and products coating operation at a premises where the total VOC emissions from all metal parts and products surface coating operations (including emissions from related cleaning activities), exceed 15 pounds (6.8 kilograms) per day.

(2) This regulation does not apply to:

(a) Automotive and light duty truck coating subject to COMAR 26.11.19.03;

(b) Can coating subject to COMAR 26.11.19.04;

(c) Coil coating subject to COMAR 26.11.19.05;

(d) Large appliance coating subject to COMAR 26.11.19.06;

(e) Paper, Fabric, Film, and Foil coating subject to COMAR 26.11.19.07;

(f) Plastic Parts and Business Machines coatings subject to COMAR 26.11.19.07-2;

(g) Cold and Vapor Degreasing subject to COMAR 26.11.19.09;

(h) Industrial Solvent Cleaning Operations Other Than Cold and Vapor Degreasing subject to COMAR 26.11.19.09-1;

(i) Drum and pail coating subject to COMAR 26.11.19.13;

(j) Aerospace coating subject to COMAR 26.11.19.13-1;

(k) Brake shoe coating subject to COMAR 26.11.19.13-2;

(l) Structural steel coating subject to COMAR 26.11.19.13-3;

(m) Refinishing of motor vehicles subject to COMAR 26.11.19.23;

(n) Marine vessel coating subject to COMAR 26.11.19.27; and

(o) Pleasure craft coating subject to COMAR 26.11.19.27-1.

(3) This regulation does not apply to repair or touch-up coatings when applied using a hand-held, pressurized, non-refillable container which expels coatings from the container in a finely divided spray when a valve on the container is depressed.

(4) The emission standards in §D and application methods of §E of this regulation do not apply to application of the following coatings to the surface of any metal part or product which will be assembled with other metal, wood, fabric, plastic, or glass parts:

(a) Stencil coatings;

(b) Safety-indicating coatings;

(c) Magnetic data storage disk coatings; and

(d) Electric-insulating and thermal-conducting coatings.

(5) The emission standards in §D and application methods of §E of this regulation do not apply to plastic extruded onto metal to form a coating on any metal part or product which will be assembled with other metal, wood, fabric, plastic, or glass parts.

D. Emission Standards.

(1) A person subject to this regulation may not exceed the applicable VOC emission standards (expressed in terms of mass of VOC per volume of coating excluding water and exempt compounds, as applied) of the following table when applying a metal furniture coating:

Coating Type	Baked		Air-Dried	
	Lbs/gal	Kg/l	Lbs/gal	Kg/l
General, one-component	2.3	0.275	2.3	0.275
General, multi-component	2.3	0.275	2.8	0.340
Extreme performance	3.0	0.360	3.5	0.420
Metallic	3.5	0.420	3.5	0.420
Pretreatment	3.5	0.420	3.5	0.420
Solar absorbent	3.0	0.360	3.5	0.420
Extreme high gloss	3.0	0.360	2.8	0.340

(2) A person subject to this regulation may not exceed the applicable VOC emission standards (expressed in terms of mass of VOC per volume of coating excluding water and exempt compounds, as applied) of the following table when applying a metal parts and products coating:

Coating Type	Baked		Air-Dried	
	Lbs/gal	Kg/l	Lbs/gal	Kg/l
General, one-component	2.3	0.275	2.8	0.340
General, multi-component	2.3	0.275	2.8	0.340
Adhesion promoter	4.0	0.479	4.0	0.479
Prefabricated architectural one component and multi-component	2.3	0.280	3.5	0.420
Military specification	2.3	0.280	2.8	0.340
Extreme high-gloss; extreme performance; heat-resistant; high performance architectural; repair coating; solar absorbent; or touch up coating	3.0	0.360	3.5	0.420
Camouflage, electric-insulating varnish; etching filler; high temperature; metallic; mold-seal; pan backing; pretreatment; silicone release and vacuum-metalizing	3.5	0.420	2.8	0.420

E. Application Methods.

(1) Except as provided in §E(2) of this regulation, a person subject to the requirements of this regulation shall use the following application methods:

- (a) Electrostatic application;
- (b) HVLP spray;
- (c) Flow coat;
- (d) Roller coat;

(e) Dip coat including electrodeposition;

(f) Brush coat; or

(g) A coating application method capable of achieving a transfer efficiency equivalent to or better than the efficiency achieved by HVLP spraying.

(2) The application requirements of §E(1) of this regulation do not apply to the following coating operations:

(a) Repair coatings;

(b) Touch-up coatings;

(c) Coatings applied to create a textured finish; or

(d) Robotic application of heavy-duty engine coatings.

