

15A NCAC 02D .0967 MISCELLANEOUS METAL AND PLASTIC PARTS COATINGS

(a) For the purpose of this Rule, the following definitions apply:

- (1) "Air dried coating" means a coating that is cured at a temperature below 90 degrees Celsius (194 degrees Fahrenheit).
- (2) "Baked coating" means a coating that is cured at a temperature at or above 90 degrees Celsius (194 degrees Fahrenheit).
- (3) "Clear coat" means a colorless coating that contains binders, but no pigment, and is formulated to form a transparent film.
- (4) "Coating unit" means a series of one or more coating applicators and any associated drying area and oven where a coating is applied, dried, and cured.
- (5) "Drum" means any cylindrical metal shipping container with a capacity greater than 12 gallons but less than 110 gallons.
- (6) "Electric dissipating coating" means a coating that rapidly dissipates a high voltage electric charge.
- (7) "Electric-insulating varnish" means a nonconvertible type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.
- (8) "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.
- (9) "Extreme high-gloss coating" means a coating which, when tested by the American Society for Testing Material Test Method D-523 adopted in 1980, shows a reflectance of 75 or more on a 60 degrees meter.
- (10) "Extreme-performance coating" means a coating used on a metal or plastic 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 solutions;
 - (B) Repeated exposure to temperatures in excess of 250 degrees Fahrenheit; or
 - (C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents.Extreme performance coatings include coatings applied to locomotives, railroad cars, farm machinery, and heavy duty trucks.
- (11) "High-performance architectural coating" means a coating used to protect architectural subsections that meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 2604-05: Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels or AAMA 2605-05: Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels. These performance requirements and test procedures are incorporated by reference, including subsequent amendments and editions. A copy of AAMA 2604-05 may be obtained free of charge at <http://www.starrail.com/wp-content/docs/AAMA2604-05.pdf>. A copy of AAMA 2605-05 may be obtained free of charge at <http://www.starrail.com/wp-content/docs/AAMA2605-05.pdf>.
- (12) "Miscellaneous metal product and plastic parts surface coatings" means the coatings that are applied to the surfaces of a varied range of metal and plastic parts and products that are constructed either entirely or partially from metal or plastic. These miscellaneous metal products and plastic parts include metal and plastic components of the following types of products, as well as the products themselves: fabricated metal products, molded plastic parts, small and large farm machinery, commercial and industrial machinery and equipment, automotive or transportation equipment, interior or exterior automotive parts, construction equipment, motor vehicle accessories, bicycles and sporting goods, toys, recreational vehicles, pleasure craft (recreational boats), extruded aluminum structural components, railroad cars, heavy duty trucks, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes, and other industrial and household products.
- (13) "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 a dry film.

- (14) "One-component coating" means a coating that is ready for application as it comes out of its container to form a dry film. A thinner, necessary to reduce the viscosity, shall not be considered a component.
- (b) This Rule applies to miscellaneous metal and plastic parts surface coating units whose volatile organic compounds emissions meet the threshold established in 15A NCAC 02D .0902(b) for coating and related cleaning activities of the following types of products:
- (1) fabricated metal products, molded plastic parts, small and large farm machinery, commercial and industrial machinery and equipment;
 - (2) automotive or transportation equipment, interior or exterior automotive parts, construction equipment, motor vehicle accessories, bicycles and sporting goods;
 - (3) toys, recreational vehicles, pleasure craft (recreational boats), extruded aluminum structural components, railroad cars, heavy duty trucks, lawn and garden equipment;
 - (4) business machines, laboratory and medical equipment; and
 - (5) electronic equipment, steel drums metal pipes, and other industrial and household products.
- (c) This Rule does not apply to:
- (1) coatings that are applied to test panels and coupons as part of research and development, quality control;
 - (2) performance testing activities at paint research or manufacturing facility; or
 - (3) sources covered by 15A NCAC 02D .0922, .0923, .0935, .0961, .0962, .0963, .0964, .0965, .0966, and .0968.
- (d) With the exception stated in Paragraph (c) of this Rule, emissions of volatile organic compounds before control for surface coating of:
- (1) Metal parts and products shall not exceed limits as established in Table 1;

Table 1. Metal Parts and Products Volatile Organic Compounds Content Limits

Coating Category	Air Dried lb VOC/gal coating	Baked lb VOC/gal coating
General One Component; General Multi Component; Military Specification	2.8	2.3
Camouflage; Electric-Insulating Varnish; Etching Filler; High Temperature; Metallic; Mold-Seal; Pan Backing; Pretreatment Coatings; Drum Coating, New, Interior; Drum Coating, Reconditioned, Exterior; Silicone Release; Vacuum-Metalizing	3.5	3.5
Extreme High-Gloss; Extreme Performance; Heat-Resistant; Repair and Touch Up; Solar-Absorbent	3.5	3.0
High Performance Architectural	6.2	6.2
Prefabricated Architectural Multi-Component; Prefabricated Architectural One-Component	3.5	2.3
Drum Coating, New, Exterior	2.8	2.8
Drum Coating, Reconditioned, Interior	4.2	4.2

- (2) Plastic parts and products shall not exceed limits as established in Table 2;

Table 2. Plastic Parts and Products Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
General One Component	2.3
General Multi Component; Metallic	3.5
Electric Dissipating Coatings and Shock-Free Coatings; Optical Coatings; Vacuum-Metalizing	6.7
Extreme Performance	3.5 (2-pack coatings)
Military Specification	2.8 (1 pack) 3.5 (2 pack)
Mold-Seal	6.3

Multi-colored Coatings	5.7
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- (3) automotive/transportation and business machine plastic parts shall not exceed limits as established in Table 3;

Table 3. Automotive/Transportation and Business Machine Plastic Parts Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
Automotive/Transportation Coatings	
I. High Bake Coatings – Interior and Exterior Parts	
Non-flexible Primer	3.5
Base Coats; Non-basecoat/clear coat; Flexible Primer	4.3
Clear Coat	4.0
II. Low Bake/Air Dried Coatings – Exterior Parts	
Primers; Basecoat; Non-basecoat/clearcoat	4.8
Clearcoats	4.5
III. Low Bake/Air Dried Coatings – Interior Parts	5.0
IV. Touchup and Repair Coatings	5.2
Business Machine Coatings	
Primers; Topcoat Texture Coat; Touchup and repair	2.9
Fog Coat	2.2

- (4) pleasure craft shall not exceed limits as established in Table 4;

Table 4. Pleasure Craft Surface Coating Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
Extreme High Gloss Topcoat	4.1
High Gloss Topcoat Finish; Primer/Surfacer; All other pleasure craft surface coatings for metal or plastic	3.5
Pretreatment Wash Primers	6.5
High Build Primer Surfacer; Other Substrate Antifoulant Coating	2.8
Aluminum Substrate Antifoulant Coating	4.7

- (5) motor vehicle materials shall not exceed limits as established in Table 5.

Table 5. Motor Vehicle Materials Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
Motor vehicle cavity wax; Motor vehicle sealer; Motor vehicle deadener; Motor vehicle underbody coating; Motor vehicle trunk interior coating	5.4
Motor vehicle gasket/gasket sealing material; Motor vehicle bedliner	1.7
Motor vehicle lubricating wax/compound	5.8

(e) With the exception of motor vehicle materials coatings, any miscellaneous metal and plastic parts coatings operations facility may choose a combination of low volatile organic compounds coatings and add-on control equipment on a coating unit. Emissions of volatile organic compounds before control with such combination shall not exceed limits for surface coating of:

- (1) Metal parts and products as established in Table 6;

Table 6. Metal Parts and Products Volatile Organic Compounds Content Limits

Coating Category	Air Dried	Baked
	lb VOC/gal solids	lb VOC/gal solids
General One Component; General Multi Component; Military	4.52	3.35

Specification		
Etching Filler; High Temperature; Metallic; Mold-Seal; Pan Backing; Pretreatment Coatings; Silicone Release; Drum Coating, New, Interior; Drum Coating, Reconditioned, Exterior; Vacuum-Metalizing	6.67	6.67
Extreme High-Gloss; Extreme Performance; Heat-Resistant; Solar-Absorbent	6.67	5.06
High Performance Architectural	38.0	38.0
Prefabricated Architectural Multi-Component	6.67	3.35
Prefabricated Architectural One-Component	6.67	3.35
Solar-Absorbent	6.67	5.06
Drum Coating, New, Exterior	4.52	4.52
Drum Coating, Reconditioned, Interior	6.67	9.78

(2) plastic parts and products as established in Table 7;

Table 7. Plastic Parts and Products Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal solids
General One Component	3.35
General Multi Component; Metallic	6.67
Electric Dissipating Coatings and Shock-Free Coatings Optical Coatings; Vacuum-Metalizing	74.7
Extreme Performance	6.67 (2-pack)
Military Specification	4.52 (1 pack) 6.67 (2 pack)
Mold-Seal	43.7
Multi-colored Coatings	25.3

(3) automotive/transportation and business machine plastic parts as established in Table 8;

Table 8. Automotive/Transportation and Business Machine Plastic Parts Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal solids
Automotive/Transportation Coatings	
I. High Bake Coatings – Interior and Exterior Parts	
Flexible Primer	11.58
Non-flexible Primer; Non-basecoat/clear coat	6.67
Base Coats	10.34
Clear Coat	8.76
II. Low Bake/Air Dried Coatings – Exterior Parts	
Primers	13.8
Basecoat; Non-basecoat/clearcoat	15.59
Clearcoats:	11.58
III. Low Bake/Air Dried Coatings – Interior Parts	15.59
IV. Touchup and Repair Coatings	17.72
Business Machine Coatings	
Primers; Topcoat; Texture Coat; Touchup and repair	4.8
Fog Coat	3.14

(4) pleasure craft surface coatings as established in Table 9.

Table 9. Pleasure Craft surface Coatings Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal solids
Extreme High Gloss Topcoat	9.2
High Gloss Topcoat; Finish Primer/Surfacer; All other pleasure craft surface coatings for metal or plastic	6.7
Pretreatment Wash Primers	55.6
Aluminum Substrate Antifoulant Coating	12.8
High Build Primer Surfacer; Other Substrate Antifoulant Coating	4.4

(f) EPA Method 24 or 25A of Appendix A to 40 CFR Part 60 shall be used to determine the volatile organic compounds content of coating materials used at miscellaneous metal and plastic part coating facilities, unless the facility maintains records to document the volatile organic compounds content of coating materials from the manufacturer.

(g) With the exception of motor vehicle materials coatings, any miscellaneous metal and plastic parts coatings operations facility may choose to use add-on control equipment with an overall control efficiency of 90 percent in lieu of using low-VOC coatings and specified application methods.

(h) The owner or operator of any facility subject to this Rule shall comply with 15A NCAC 02D .0903 and 0958.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. September 1, 2010;
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