

Selection & Specification Data

Generic Type	Modified aluminum epoxy mastic
Description	Aluminum-pigmented, low-stress, high-solids mastic with outstanding performance properties and proven field history. Carbomastic 15 was the pioneer mastic coating in a number of industrial markets and today still provides unmatched levels of barrier protection and corrosion resistance over existing finishes and rusted or SSPC-SP2 or SP3-cleaned steel.
Features	<ul style="list-style-type: none"> • Excellent performance over minimal surface preparation of steel substrates • Suitable as a topcoat for most tightly adhered existing coatings • Excellent choice for field touch-up of zinc-rich primers and galvanized steel • Unique formulation with aluminum flakes provides exceptional barrier protection • May be applied at 35°F (2°C) when CM 15 FC's part B is utilized. • VOC compliant to current AIM regulations
Color	CM 15: Aluminum (C901); Red (M500)* CM 15 FC: Aluminum (C901); Red (M500)* Color variations within a batch and from batch-to-batch may occur due to the metallic pigments and variations in application techniques and conditions. Neither product is color matched, nor will they match each other. (15 FC may have a greenish appearance.) *Red (M500) is available for use as a contrasting primer in multiple coat applications, but should always be topcoated.
Primers	Self-priming. May be applied over most tightly adhering coatings as well as inorganic zinc primers. A mist coat may be required to minimize bubbling over inorganic zinc primers.
Topcoats	Acrylics, Alkyds, Epoxies, Polyurethanes
Dry Film Thickness	3.0 mils (75 microns) over existing coatings and 5.0 mils (125 microns) minimum on rusted steel. 7.0-10.0 mils (175-250 microns) in one or two coats for severe exposures. Do not exceed 10.0 mils (250 microns) in a single coat.
Solids Content	By Volume: 90% ± 2%
Theoretical Coverage Rate	1444 mil ft ² (36.0 m ² /l) at 25 microns 288 ft ² at 5 mils (7.2 m ² /l) at 125 microns Allow for loss in mixing and application
VOC Values	As supplied: (CM15) 0.7 lbs/gal (88 g/l) (CM15FC) 0.8 lbs/gal (97 g/l)
CM 15 & CM 15 FC	Thinned: (values are for CM15) 32 oz/gal w/ #76: 1.9 lbs/gal (231 g/l) 32 oz/gal w/ #10: 2.0 lbs/gal (242 g/l) These are nominal values.
HAPS Values	As supplied: (CM15) 0.70 lbs/solid gal
Dry Temp.	Continuous: 180°F (82°C)
Resistance	Non-Continuous: 250°F (121°C) Discoloration is observed above 180°F (82°C).

October 2010 replaces April 2010

Substrates & Surface Preparation

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
Steel	<u>Immersion:</u> SSPC-SP10 with a 2.0-3.0 mil (50-75 micron) surface profile. <u>Non-Immersion:</u> SSPC-SP6 with a 2.0-3.0 mil (50-75 micron) surface profile for maximum protection. SSPC-SP2, SP3, SP7, or SP12 are also acceptable methods
Galvanized Steel	For optimum performance sweep blast cleaning is recommended. Consult your Carboline Sales Representative for specific recommendations.
Previously Painted Surfaces	Lightly sand or abrade to roughen and degloss the surface. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 "X-Scribe" adhesion test.

Performance Data

Test Method	System	Results
ASTM D522 Flexibility	Blasted steel 1 ct. CM15	A) Conical - crack 0.38", actual elongation 48-57% B) Cylindrical - no cracking observed
ASTM D4060 Taber Abrasion	1 ct. CM15	89.8 mg per 3000 cycles CS 17 wheel, 1000 gm load.
ASTM G14 Impact Resistance	A) Blast steel 1 ct. CM15 B) Rusted steel 1 ct. CM15	Area damaged: A) 1/4 inch (0.25") B) 1/4 - 9/16 inch (0.44")
ASTM B117 Salt Spray	Rusted steel 1 ct. CM 15	No blistering, rusting, or softening No rust creep from scribe
ASTM D1735 Water Fog	Rusted steel 1 ct. CM 15	No blistering or softening No creep from scribe

Test reports and additional data available upon written request.

Carbomastic® 15 & 15 FC

Application Equipment

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Spray Application (General) The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

Conventional Spray Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .086" I.D. fluid tip and appropriate air cap.

Airless Spray
 Pump Ratio: 30:1 (min.)
 GPM Output: 3.0 (min.)
 Material Hose: 3/8" I.D. (min.)
 Tip Size: .019-.025"
 Output PSI: 1900-2100
 Filter Size: 60 mesh
 *Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. Use clean natural bristle brush or medium nap phenolic core roller. Work coating into all irregularities.

Plural Component May be applied by plural component spray equipment. Contact Carboline Technical Service for specific recommendations.

Mixing & Thinning

Mixing Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS. (Note: Carbomastic 15 FC uses the same Part A as Carbomastic 15)

Ratio 1:1 Ratio (A to B)

Thinning May be thinned up to 32 oz/gal (25%) with Thinner #10. Substitute Thinner #72 when non-photochemically reactive thinners are required. To extend pot life, may be thinned up to 32 oz/gal (25%) with Thinner #72. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Pot Life 2 Hours at 75°F (24°C) unthinned
 CM 15 1 Hour at 90°F (32°C) unthinned
 Pot life ends when coating become too viscous to use.

Pot Life Approximately 30 minutes at 75°F (24°C) unthinned.
 CM 15 FC When thinned 12%, pot life will be 45 minutes at 75°F. Pot life ends when coating becomes too viscous to use.

Cleanup & Safety

Cleanup Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

Safety Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

Ventilation When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.

Caution This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes

October 2010 replaces April 2010

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Carboline® and Carbomastic® are registered trademarks of Carboline Company.

Application Conditions

CM 15

Condition	Material	Surface	Ambient	Humidity
Normal	65°-85°F (18°-29°C)	65°-85°F (18°-29°C)	65°-85°F (18°-29°C)	35-80%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	130°F (54°C)	100°F (38°C)	95%

CM 15 FC

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	35°F (2°C)	35°F (2°C)	0%
Maximum	75°F (24°C)	130°F (54°C)	100°F (38°C)	95%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

Curing Schedule

CM 15

Surface Temp. & 50% Relative Humidity	Dry to Recoat / Topcoat	Final Cure for Immersion Service
50°F (10°C)	5 Days	15 Days
60°F (16°C)	3 Days	10 Days
75°F (24°C)	24 Hours	5 Days
90°F (32°C)	18 Hours	3 Days

Dry to Touch is 5 hours at 75°F (24°C). Maximum recoat/topcoat times are 30 days for epoxies and 90 days for polyurethanes at 75°F (24°C).

CM 15 FC

Surface Temp. & 50% Relative Humidity	Dry to Recoat / Topcoat
35°F (2°C)	32 Hours
50°F (10°C)	25 Hours
60°F (16°C)	18 Hours
75°F (24°C)	5 Hours

Dry to Touch is 3.5 hours at 75°F (24°C). Maximum recoat/topcoat times are 30 days for epoxies and 90 days for polyurethanes at 75°F (24°C).

These times are based on a 5.0-7.0 mil (125-175 micron) dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or bluish must be removed by water washing before recoating. If the maximum recoat time is exceeded, the surface must be abraded by sweep blasting prior to the application of additional coats. Note: This product contains conductive pigments and cannot be holiday tested.

Packaging, Handling & Storage

Shipping Weight (Approximate)

	2 Gallon Kit	10 Gallon Kit
	25 lbs (11 kg)	124 lbs (56 kg)

Flash Point (Setflash)

CM 15	Part A:	>200°F (93°C)
CM 15	Part B:	76°F (24°C)
CM 15 FC	Part B:	45°F (7°C)

Storage (General)

Store Indoors
 Storage Temperature & Humidity 45° - 110°F (7-43°C)
 0-90% Relative Humidity

Shelf Life: CM 15 Part A & B: Min. 36 months at 75°F (24°C)
 CM 15 FC Part A & B: Min. 36 months at 75°F (24°C)

***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**



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 314/644-1000 314/644-4617 (fax) www.carboline.com

An **RPM** Company

SOLID METAL

MATERIAL SAFETY DATA SHEET



Pretty. Tough. Paint.

INCLUDES

Solid Metal consists of Metalli-Coat 2000™ and Ultra-Clear™. Below are the MSDS sheets for both.

METALLI-COAT 2000

MATERIAL SAFETY DATA SHEET

High. Paint.

PRODUCT IDENTIFICATION

Master Coating Technologies
2777 Eagandale Boulevard
Eagan, MN 55121
800.898.0219

Trade Name: **Scuffmaster Metalli-Coat 2000**
Chemical Family: Urethane/Acrylic Metallic Pigment Dispersion

Medical & Transport Emergency Contact
INFOTRAC: 1.800.535.5053
MSDS Date: 04.08.2009
DOT Classification: Not Regulated
Supersedes: All Previous CAS Number: Mixture
Synonyms: MC2000, 7226

PHYSICAL DATA

Boiling Range (F): 212 (water) Solubility in Water: Dilutable
Freezing Point (F): 32 (water) Specific Gravity: 1.1 - 1.3
Vapor Density (Air=1): <1 % Volatile by Weight: 47.5
Vapor Pressure (mmHg @ 68°F): 1 7 pH Information: 9.0 - 10.0
Evaporation Rate (Butyl Acetate = 1): 1 (water) **VOC: 139 g/L** Appearance & Odor: Liquid, metallic colors, latex odor

HAZARDOUS INGREDIENTS

Ingredient	Percent	PPM	MG/M3	CAS Number
Propylene Glycol	1-2	300	N/A	57-55-6
Ether Alcohol	1-2	None Established	N/A	25265-77-4
Aluminum Flake	5-15	N/A	15-OSHA PEL & 10-ACGIH T	7429-90-5
Stoddard Solvent	1-2	N/A	525-OSHA PEL & 525-ACGIH T	8052-41-3
Aromatic Solvent	1-2	N/A	245 - Supplier Recommendation	64742-95-6

This paint mixture contains titanium dioxide and/or other pigments classified by ACGIH as "nuisance dusts." Exposures to spray mist or sanding dust should be controlled to below 10mg/m3 through usage of NIOSH/MSHA TC23C or equivalent approved dust filter respirators. Follow respirator manufacturer's directions for use.

SECTION 313 SUPPLIER NOTIFICATION: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372. NONE above the minimum concentrations.

HMIS Rating: Health = 1 Flammability = 1 Reactivity = 0 Personal Protection = B*

*User should determine appropriate personal protective equipment based on use conditions.

HEALTH HAZARD DATA

TOXICITY DATA: SOLVENTS: Oral LD₅₀ rat > 5000 mg/kg (essentially nontoxic) - dermal LD₅₀ rabbit > 3160 mg/kg (slight toxic)
ALUMINUM: None. No toxic effects are known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE AND ROUTES OF ENTRY

Entry Routes: Inhalation, Ingestion, Skin Contact, Eye Contact **Effects of Overexposure:** N/A **Effects of Inhalation:** Trace component, residual monomer, and other organics may be irritating to the eyes, skin, mucous membranes, respiratory tract and may produce symptoms of headache and nausea in poorly ventilated areas. **Effects of Ingestion:** **DO NOT INGEST!** While aluminum content is non-toxic and the solvents are only slightly toxic by oral ingestion, minute amounts of certain portions of the solvents, if aspirated into the lungs during ingestion, may cause severe pulmonary injury or death. **Effects of Skin Contact:** Prolonged contact can cause transient reddening of the skin. **Effect of Eye Contact:** Direct contact may be irritating to eyes. **Effects of Repeated Overexposure:** This paint mixture as provided shows no evidence of chronic effects from available information.

MC2000 – MATERIAL SAFETY DATA SHEET (continued)

HEALTH HAZARD DATA (continued)

of the solvents, if aspirated into the lungs during ingestion, may cause severe pulmonary injury or death. **Effects of Skin Contact:** Prolonged contact can cause transient reddening of the skin. **Effect of Eye Contact:** Direct contact may be irritating to eyes. **Effects of Repeated Overexposure:** This paint mixture as provided shows no evidence of chronic effects from available information.

EMERGENCY FIRST AID PROCEDURES

Eye Contact: Immediately flush eyes for 15 minutes occasionally lifting eyelids. If victim wears contact lenses, remove lenses and continue rinsing. Clean lenses before reusing. If irritation continued, consult a physician. **Skin Contact:** Wash effected area thoroughly with mild soap and water. If irritation develops and persists, consult a physician. **Inhalation:** Move to fresh air if necessary. If irritation persists, consult a physician. If victim is not breathing, artificial respiration should be administered by qualified personnel. Seek immediate medical attention. **Ingestion:** If swallowed, give lots of water, and induce vomiting. If necessary consult a physician.

FIRE & EXPLOSION HAZARD DATA

Flash Point: 104° F (40°C) Minimum (Method - Setflash)
LEL: Not determined (aqueous system)
UEL: Not determined (aqueous system)

Fire Extinguishing Media:
Use Class B and Class D extinguishers
Special Fire Fighting Procedures:
Use breathing apparatus when fighting enclosed fires.

Unusual Fire and Explosion Hazard:

Dried solids can burn, giving off carbon dioxide, carbon monoxide, aluminum oxide, nitrogen oxide, ammonia and phosphorous oxide. Aluminum flake can react with some acid and caustic solutions to form gas and heat.

REACTIVITY DATA

This product is stable under normal (ambient) conditions and hazardous polymerization will not occur. **Hazardous Decomposition Products:** Combustion of dried film may produce carbon dioxide and carbon monoxide. **Conditions or Materials to Avoid:** None.

SPILL OR LEAK PROCEDURES

Spill: Major spills should be collected for disposal. Minor spills may be flushed to sewer if permitted by local, state, and federal regulations. **Waste Disposal:** Incinerate or bury in suitable landfills where permitted by appropriate government regulations.

SPECIAL PROTECTION INFORMATION

Respiratory Protection: Use appropriate MAHA/NIOSH approved respirator in areas with poor ventilation and when exposed to spray mists or sanding dusts. **Ventilation:** General room ventilation is expected to be satisfactory. Use local exhaust if needed for mist or vapor. **Protective Gloves:** Wear gloves impervious to water and soap. **Eye Protection:** Wear goggles if spraying and available eye bath.

Disclaimer: The information in this MSDS was obtained from sources we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness. The conditions or handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product. Disposal of containers should be in accordance with applicable federal, state and local laws and regulations.

Thank you for selection Scuffmaster.

technical support: 1.800.898.0219

documents: www.scuffmaster.com



ENVIROMETAL

MATERIAL SAFETY DATA SHEET



PRODUCT IDENTIFICATION

Master Coating Technologies
 2740 31st Avenue South
 Minneapolis, MN 55406
 800.898.0219
 Trade Name: **EnviroMetal Paint™**
 Chemical Family: Urethane/Acrylic Pigment Dispersion

Medical & Transport Emergency Contact:
INFOTRAC: 1.800.535.5053
 MSDS Date: 02.08.2006
 DOT Classification: Not Regulated
 Supersedes: All Previous CAS Number: Mixture

PHYSICAL DATA

Boiling Range (F): 212 (water) Solubility in Water: Dilutable
 Freezing Point (F): 32 (water) Specific Gravity: 1.1 - 1.3
 Vapor Density (Air=1): <1 % Volatile by Weight: 47-48%
 Vapor Pressure (mmHg @ 68° F): 17 pH Information: 8.0 - 9.5
 Evaporation Rate (Butyl Acetate = 1): 1 (water) **VOC: < 150 g/L** Appearance & Odor: Liquid, colors, latex odor

HAZARDOUS INGREDIENTS

Ingredient	Percent	PPM	MG/M3	CAS Number
Propanediol	1 - 5	300	N/A	57-55-6
Trimethyl-pentanediol isobutyrate	1 - 5	N/A	Not Established	25265-77-4
Mica	5 - 15	N/A	Not Established	12001-26-2
Silica	0 - 5	N/A	Not Established	14808-60-7
Aluminum Flake	5 - 15	N/A	15-OSHA PEL & 10-ACGIH TLV	7429-90-5
Aliphatic Solvent	1 - 2	N/A	525-OSHA PEL & 525-ACGIH TLV	8052-41-3
Aromatic Solvent	1 - 2	N/A	245-Supplier Recommendation	64742-95-6

This paint mixture contains titanium dioxide and/or other pigments classified by ACGIH as "nuisance dusts." Exposures to spray mist or sanding dust should be controlled to below 10mg/m3 through usage of NIOSH/MSHA TC23C or equivalent approved dust filter respirators. Follow respirator manufacturer's directions for use.

SECTION 313 SUPPLIER NOTIFICATION: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.
NONE above the minimum concentrations.

HMS Rating: Health = 1 Flammability = 1 Reactivity = 0 Personal Protection = B*
 *User should determine appropriate personal protective equipment based on use conditions.

HEALTH HAZARD DATA

TOXICITY DATA: SOLVENTS: Oral LD50 rat > 5000 mg/kg (essentially nontoxic) – dermal LD50 rabbit > 3160 mg/kg (slight toxic)
ALUMINUM: None. No toxic effects are known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE AND ROUTES OF ENTRY. Entry Routes: Inhalation, Ingestion, Skin Contact, Eye Contact
Effects of Overexposure: N/A **Effects of Inhalation:** Trace component, residual monomer, and other organics may be irritating to the eyes, skin, mucous membranes, respiratory tract and may produce symptoms of headache and nausea in poorly ventilated areas. **Effects of Ingestion:** **DO NOT INGEST.** While aluminum content is non-toxic and the solvents are only slightly toxic by oral ingestion, minute amounts of certain portions of the solvents, if aspirated into the lungs during ingestion, may cause severe pulmonary injury or death. **Effects of Skin Contact:** Prolonged contact can cause transient reddening of the skin. **Effect of Eye Contact:** Direct contact may be irritating to eyes. **Effects of Repeated Overexposure:** This paint mixture as provided shows no evidence of chronic effects from available information.

ENVIROMETAL PAINT – MATERIAL SAFETY DATA SHEET (continued)

EMERGENCY FIRST AID PROCEDURES

Eye Contact: Immediately flush eyes for 15 minutes occasionally lifting eyelids. If victim wears contact lenses, remove lenses and continue rinsing. Clean lenses before reusing. If irritation continued, consult a physician. **Skin Contact:** Wash effected area thoroughly with mild soap and water. If irritation develops and persists, consult a physician. **Inhalation:** Move to fresh air if necessary. If irritation persists, consult a physician. If victim is not breathing, artificial respiration should be administered by qualified personnel. Seek immediate medical attention. **Ingestion:** If swallowed, give lots of water, and induce vomiting. If necessary consult a physician.

FIRE & EXPLOSION HAZARD DATA

Flash Point: 104° F (40°C) Minimum (Method - Setflash)
LEL: Not determined (aqueous system)
UEL: Not determined (aqueous system)

Fire Extinguishing Media:
Use Class B and Class D extinguishers

Special Fire Fighting Procedures:
Use breathing apparatus when fighting enclosed fires.

Unusual Fire and Explosion Hazard:

Dried solids can burn, giving off carbon dioxide, carbon monoxide, aluminum oxide, nitrogen oxide, ammonia and phosphorous oxide.
Aluminum flake can react with some acid and caustic solutions to form gas and heat.

REACTIVITY DATA

This product is stable under normal (ambient) conditions and hazardous polymerization will not occur. **Hazardous Decomposition Products:** Combustion of dried film may produce carbon dioxide and carbon monoxide. **Conditions or Materials to Avoid:** None.

SPILL OR LEAK PROCEDURES

Spill: Major spills should be collected for disposal. Minor spills may be flushed to sewer if permitted by local, state, and federal regulations.
Waste Disposal: Incinerate or bury in suitable landfills where permitted by appropriate government regulations.

SPECIAL PROTECTION INFORMATION

Respiratory Protection: Use appropriate MAHA/NIOSH approved respirator in areas with poor ventilation and when exposed to spray mists or sanding dusts. **Ventilation:** General room ventilation is expected to be satisfactory. Use local exhaust if needed for mist or vapor. **Protective Gloves:** Wear gloves impervious to water and soap. **Eye Protection:** Wear goggles if spraying and available eye bath.

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Thank you for selection Scuffmaster.

technical support: 1.800.898.0219

documents: www.scuffmaster.com





Pretty. Tough. Paint.

Product Data Sheet

EnviroMetal Paint™

Rolled or Brushed Hand applied Metallic Finish
The metallic paint for any setting

Product Description

Scuffmaster EnviroMetal Paint is a low odor, low VOC, LEED Compliant metallic paint that is ideal for any interior environment. This innovative hand applied metallic paint is available in two finishes - brushed or rolled - each offering a distinctive, yet elegant look. EnviroMetal Paint is available in thousands of colors, including most of your favorite colors from the Scuffmaster Solid Metal collection.

Features

Benefits

- | | |
|---|---|
| <ul style="list-style-type: none"> • Metallic Finish Effect • Environmentally Responsible
 • Easy Application
 • Exceptionally Durable • Contractor Friendly • Textured finish • Quick order shipment • Warranty
 • Class A fire rated | <p>Elegant and sophisticated and flexible design</p> <p>LEED compliant, low-odor application and low-VOC content make Scuffmaster water-base paints compliant with national and international Environmental standards - including the US Green Building Council, Green Seal, California South Coast Air Quality Management District and the European Union</p> <p>Extremely versatile - applied by hand, either brushed or rolled. NOT TO BE SPRAYED. For sprayed metallic paint, see Scuffmaster's Solid Metal Finish.</p> <p>Cleanable, scrub-able and easy to maintain.</p> <p>No heavy equipment is required (hand applied)</p> <p>Easy repairs</p> <p>Most orders (even customs) ship within 24 hours</p> <p>5 - Year manufacturer's warranty against adhesion failure if product is correctly applied</p> <p>Like all Scuffmaster paints, EnviroMetal is Class A fire rated.</p> |
|---|---|

Where To Specify EnviroMetal

Corporate Spaces

Corridors
Lobby areas
Offices
Columns
Rooms

Retail Spaces

Interior walls
Columns
Facades

Entertainment Facilities

Interior walls
Accent areas
Feature walls

Healthcare Facilities

Interior spaces
Offices
Columns
Rooms

Remember that Scuffmaster Paints are designed for wall surfaces yet can be applied to display fixtures, elevator doors, stairway frames, columns and other architectural elements besides conventional walls.

Suitable Substrates: Very smooth surfaces for best results. MCT suggests that new sheetrock be prepared to a Level 5 smoothness in accordance with the Gypsum Association's GA214 standard.

Application: Commercial painting contractors. **Must be brushed or rolled, depending upon specified finish.** Call your Scuffmaster distributor or MCT for details (800) 898-0219. Natural variation (lighter or darker areas) in installed finish is a characteristic of the product.

Custom Colors: Yes. No upcharge. Contact your Scuffmaster distributor.

Technical Information

System Components: Tinted Undercoat (primer/sealer or bonding), base coat (brushed or rolled)

Finish Appearance: Textured finish. Colors may exhibit natural darker/lighter color shades across wall surface.

Colors Available: Thousands of colors. Ability to customize.

Application: Commercial painting contractors. **Must be brushed or rolled, depending upon specified finish.** Call your Scuffmaster distributor or MCT for details (800) 898-0219.

Coverage Rates: Tinted Undercoat - approximately 450 sq. ft. per gallon
 Base coat - approximately 250 sq. ft. per gallon depending on application technique.

Maximum VOC:	<150 g/L	Laboratory Analysis
Fire Rating:	Under coat - Class A or I Base coat - Class A or I	ASTM E-84-91a ASTM E-84-91a

Five Year Limited Warranty

Master Coating Technologies warrants the Scuffmaster components of this finish system against manufacturing defect for a period of five years from the date of application when applied to a wall surface according to manufacturer's printed instructions. Manufacturing defect is defined to be a failure of the coating system to adhere to a wall surface when applied according to manufacturer's printed instructions, and does not include subsequent failure or damage caused by exogenous factors such as substrate failure or defect, sharp objects, persons, or acts of God. In the event of a failure resulting from manufacturing defect, the product will be replaced. Master Coating Technologies shall have no obligation to or otherwise participate in labor or other costs associated with replacing the product. This warranty supersedes all previous warranties.

Safety Information

First Aid: Ingestion - induce vomiting, consult a physician. Skin contact - wash with soap and water. Eye contact - immediately flush eyes for 15 minutes occasionally lifting eyelids. If contact lenses are worn, remove lenses and continue rinsing. Clean lenses before reusing - may not be possible to reuse. Obtain medical attention. Refer to product MSDS and crosslinker MSDS. In case of emergency, call 800-535-5053.

How To Specify EnviroMetal

Specifying a Scuffmaster EnviroMetal finish is easy.

1. Call out the Scuffmaster finish color number in your finish schedule or on drawings. Scuffmaster color numbers are printed below each color chip in standard sample cards and on the reverse of every custom sample.
2. Call out the Scuffmaster system components required for the substrate being painted in the "products" section of your specification. The EnviroMetal finish systems for common substrates are listed below.

IMPORTANT: EnviroMetal is a highly reflective finish that, upon application, may exhibit normal color variation that is beyond the control of MCT. Specifically, colors may exhibit slight variation in darkness/lightness upon installation. The degree of surface smoothness prior to product application, applicator technique, and the effects of artificial and natural light sources will also impact the uniformity of finish appearance. New gypsum wallboard may be prepared to a Level 5 finish in accordance with the Gypsum Association's GA214 standard. MCT strongly recommends that specifiers require applicators to prepare a benchmark sample in accordance with PDCA P5-94 "Benchmark Sample Procedure for Paint and Other Decorative Coating Systems." Please refer to the guide specifications for this language.

EnviroMetal Paint Systems for Properly Prepared Surfaces

1. **New Sheetrock:**
 - Prepare to Level 5 finish for best results
 - Primer - 1 coat Scuffmaster Tinted Undercoat [Primer/Sealer].
Ensure very uniform color across surface.
 - Base Coat - Scuffmaster EnviroMetal [brushed] [rolled] (applied in two coats)
2. **Previously-Painted Surfaces:**
 - Primer - 1 coat of Scuffmaster Tinted Undercoat [Bonding Primer; Primer/Sealer] Call MCT at 800.898.0219.
 - Base Coat - Scuffmaster EnviroMetal [brushed] [rolled] (applied in two coats)
3. **Ceramic Tile:**
 - Primer - 1 coat of Scuffmaster Tinted Undercoat [Bonding Primer]
 - Base Coat - Scuffmaster EnviroMetal [brushed] [rolled] (applied in two coats)
4. **Primed Metal:**
 - Primer - 1 coat of Scuffmaster Tinted Undercoat [Bonding Primer]
 - Base Coat - Scuffmaster EnviroMetal [brushed] [rolled] (applied in two coats)
5. **Un-Primed Metal:**
 - Primer - Call MCT at (800) 898-0219
 - Base Coat - Scuffmaster EnviroMetal [brushed] [rolled] (applied in two coats)



TDS 2007

TECHNICAL DATA SHEET

Product: Metal Effects™ Acid Blocking Primer

Code: AM203

MODERN MASTERS® METAL EFFECTS™ WATER BASED METALLIC PAINTS contains real metal particles. These paints will tarnish naturally over time and when exposed to the elements. Metal Effects Green (PA901), Blue (PA902), or Black (PA903) Patina Aging Solutions are used over Metal Effects Pale Gold Metallic (ME148), Copper Metallic (ME149), Harvest Gold Metallic (ME184), and Bronze Metallic (ME396) Paints to accelerate the oxidation process and create beautiful authentic green, blue, or black patinas. Metal Effects Iron Metallic Paint (ME208), when used with the Metal Effects Rust Activator (PA904) creates a genuine rust patina. Metal Effects Baroque Metallic Paint (ME222), when used with the Baroque Activator (PA905) creates a two-tone copper/silver finish reminiscent of the Baroque era. These products are ideal for use on properly prepared metal, wood, plaster, canvas, paper, or plastic surfaces. Popular applications can include moldings, trim, columns, doors, furniture, rain gutters, railings, lamps, vases, and planters.

Metal Effects Permacoat Acrylic Varnish is especially formulated for use over our patinated finishes. It is properly pH balanced to minimize the color change reactions that are created on the patinated finish when using other, non-pH balanced varnishes. Permacoat Acrylic Varnish is available in both Matte (AM200) or Gloss (AM201) finishes.

PRODUCT DESCRIPTION:

Metal Effects Acid Blocking Primer (AM203) is a unique water-based acrylic primer. Unlike other primers, it is especially formulated to block Metal Effects Patina Aging Solutions and Activators from reaching the metal, wood, or reactive substrate. This helps prevent the formation of rust or other oxidation products, and helps block tannic acids (contained in wood) from rising to the finished surface.



Technical Data Sheet

Modern Masters Inc. (800) 942-3166
9380 San Fernando Rd., Sun Valley CA 91352 An RPM Company

Metallic Paint Collection™ Non-Tarnishing Premixed Metallic Paint Colors Water Base Low VOC Brush, Roll or Spray apply LEED Specified



Colors Available

- Antique Bronze (ME204)
- Antique Copper (ME205)
- Black Cherry (ME704)
- Black Pearl (ME700)
- Blackened Bronze (ME238)
- Brass (ME289)
- Brick (ME510)
- Burnt Orange (ME702)
- Camel (ME703)
- Champagne (ME206)
- Copper (ME195)
- Copper Penny (ME579)
- Cranberry Mist (ME435)
- English Brown (ME525)
- Flash Blue (ME657)
- Flash Copper (ME656)
- Flash Gold (ME164)
- Gold Rush (ME658)
- Green Apple (ME706)
- Green Gold (ME230)
- Hunter Green (ME432)
- Iridescent Gold (ME194)
- Ivy (ME654)
- Lilac (ME427)
- Mystical Green (ME434)
- Nickel (ME708)
- Olympic Gold (ME659)
- Oyster (ME705)
- Pale Gold (ME200)
- Pearl White (ME196)
- Pewter (ME209)
- Pharaoh's Gold (ME660)
- Pink Pearl (ME709)
- Platinum (ME591)
- Plum (ME511)
- Rich Gold (ME701)
- Rose (ME246)
- Sage (ME247)
- Sapphire (ME655)
- Sashay Red (ME513)
- Shimmering Sky (ME514)
- Silver (ME150)
- Smoke (ME243)
- Snowflake (ME707)
- Statuary Bronze (ME190)
- Steel Gray (ME244)
- Teal (ME249)
- Tequila Gold (ME661)
- Venetian Blue (ME429)
- Warm Silver (ME221)

Modern Masters – Metallic Paint Collection: Modern Masters' Metallic Paint Collection products are water-based, non-hazardous and comply with SCAQMD Rule: 1113. Metallic Paint Collection paints combine real metallic particles, mica, and traditional pigments to create the fifty-color palette of beautiful, shimmering colors. This unique approach enables the creation of non-fading, non-tarnishing colors never before available in water based paint.

Modern Masters – Metallic Paint Collection Extender for Rolling: The Metallic Paint Collection Extender for Rolling (ME651), when added to Metallic Paint Collection paints, extends the open time or 'wet-edge' of the paint. This added open time allows for 'back-rolling' as a last step to properly orient the metallic particles and eliminate seams. The Extender is also used to transform Metallic Paint Collection Paints into translucent glazes for faux finish applications.

Modern Masters – Metallic Paint Collection Roller: Modern Masters Metallic Paint Collection Roller (ME652) is especially designed for the application of the Metallic Paint Collection paints. The Metallic Paint Collection Roller's unique, high-quality, European fabric and beveled ends work to create a uniform silk-like finish. The glue-free construction allows the Metallic Paint Collection Roller to last up to 10 times longer than conventional rollers, and makes it easy to clean. The standard nine-inch construction fits standard U.S. roller frames.

Modern Masters- MasterClear® Protective Clear Topcoats: Modern Masters' MasterClear interior/exterior topcoat, available in a Semi-gloss (ME662) or Satin (ME664) sheen, is a water-based, one part, self-crosslinking, aliphatic polyurethane/acrylic non-yellowing topcoat. MasterClear is formulated with both UV absorbers and UV inhibitors and slip aids, to

create the best possible protection for Metallic Paint Collection paints without affecting the metallic shimmer. The inherent high abrasion resistance of MasterClear also extends the service life of Metallic Paints on high-traffic interior surfaces and exceeds 3,000 scrub cycles.

Surface Preparation – Follow standard practices and procedures for properly preparing surfaces for the application of traditional water-based latex paint. All surfaces to be painted must be entirely free of dust, dirt, oil, grease, and other contaminants. Completely remove all loose, flaking, or chalking paint from the surfaces. Use a NIOSH approved respirator when sanding and when working with old, loose paint particles. Provide adequate ventilation. Properly prime the clean, dry surface with a primer from our recommended list and allow the surface to dry completely—preferably overnight. **Note:** Lower temperature and higher humidity will lengthen the dry and cure times of primers.

Recommended Primers:

- **Bulls Eye 1-2-3 by Zinsser**

- **Sierra Griptec by Rustoleum**

Substrates: previously painted surfaces, galvanized metal, unfinished drywall, vinyl siding & shutters, masonry & brick, cured stucco, cast concrete, Hardiboard & Hardiplank, unfinished plywood, particle board and direct to clean metal.

- **SealCoat by Zinsser**

Substrates: wood knots

- **WATERTITE LV by Zinsser**

Substrates: hot concrete.

- **Sierra S-70 by Rustoleum**

Substrates: ferrous metals.

- **Sierra Metalmax by Rustoleum**

Substrates: ferrous metals, DTM direct to metal and window and door mullions.

- **Mathys Pegalink by Rustoleum**

Substrates: aluminum, anodized metals, copper piping, window and door mullions.

- **Mathys Peganox by Rustoleum**

Substrates: rusting metal

For MSDS and Technical Data Sheets for these primers go to www.modernmasters.com and search in our technical section of the web site.

For Additional Information and Architectural Specifications visit ARCAT.com and search for Modern Masters Inc. or a specific product name.

Application – Modern Masters Metallic Paint Collection paints can be brushed, rolled, or spray applied (See specific equipment requirements under Spraying:) onto any paintable, properly primed, interior or exterior

surface, such as walls, ceilings, columns, trim, doors, furniture, and paintable wallcoverings. **NOTE:** Check the side of the Metallic Paint Collection label for hide and coverage characteristics. **Opaque** colors have excellent hide—two coats are recommended for best results. **Semi-opaque** colors have good hide—three coats are recommended for best results. **Sheer** colors are meant as translucent overcoats that impart a luster to existing under coats. Always test the product in a small, inconspicuous area before beginning a project to see if the desired results are attained. We recommend preparing a sample board prior to beginning a project to check color and technique. The paint should be mixed thoroughly before using. **Do not apply in temperatures below 58°F/14°C or above 85°F/29°C.**

Brushing: Use a high-quality brush recommended for water-based semi-gloss paints.

Rolling: To roll Metallic Paint Collection paints, 16 fluid ounces/473 milliliters of Modern Masters Metallic Paint Collection Extender for Rolling to 1 gallon/3.78 liters of Metallic Paint Collection paints. The Extender for Rolling imparts the 'wet-edge' time needed to avoid lap marks. Use the Metallic Paint Collection Roller to apply Metallic Paint Collection paints to large surfaces, such as walls. Use a 4-inch 'sausage roller' (such as a Whizz™ roller) to cut in corners, ceilings, and baseboards. Work in approximately 4-foot wide sections, keeping a wet edge, and finishing the surface by back-rolling in one direction, ceiling to floor. This procedure will minimize lap marks, properly orient the metallic paint particles, and ensure a uniform surface.

Spraying: To spray Metallic Paint Collection paints, thin with up to 16 fluid ounces/473 milliliters of water to one gallon/3.78 liters of Metallic Paint Collection paints. Thin carefully, as over thinning of the paint will result in loss of hide and a reduction of the desired appearance. Use an HVLP gun or a conventional cup gun with the fluid and air supply from a pressure pot and compressor. Air pressure at the HVLP spray gun needs to be approximately 30 psi, with greater pressures at the tank, approximately 60 psi. **Examples: Binks-Mach 1 HVLP**, with a 94-nozzle set up (0.55 or 1.4mm diameter fluid tip and a 90P air nozzle). The settings for this equipment were: Fluid Pressure-25psi and Air Pressure-45psi. **Binks- 2001 Conventional**, with a 66SS air nozzle set up (0.70 or 1.8 fluid tips and a 66SD air nozzle). The settings for this equipment were: Fluid Pressure-30psi and Air Pressure-60psi. Use a NIOSH approved respirator when spraying. Provide adequate ventilation. **Note: Do not use turbine-type "air compressors" to power the HVLP spray gun and do not use airless spray systems.**

Taping – Use high quality, low-tack tape when taping over surfaces that have been previously painted with Metallic Paint. When painting over taped-off areas be aware that Metallic Paints exhibit poor early adhesion properties and are elastomeric (They stretch) during curing. Because of these two factors consider cutting

along the tape edge with a razor blade to avoid delaminating the fresh paint from the substrate.

Tinting – All **Metallic Paint Collection Colors** can be intermixed to create custom colors. To lighten colors except for flash colors use **Snowflake** (ME707); to shade colors use **Black Pearl** (ME700).

Dry Times – Recoat time is approximately ½ hour. Dry-to-touch time is approximately an hour. (Drying times were recorded at 70°F and 50%RH): **Note:** Lower temperature and/or higher humidity will lengthen the dry and cure times. Addition of Extender for Rolling will triple the dry time.

Protective Clear Coating – In certain applications, such as exterior areas and interior high-traffic areas, Metallic Paint Collection paints require the use of a protective clear topcoat.

Modern Masters' MasterClear interior/exterior topcoat, available in a Semi-gloss (ME662) or Satin (ME664) sheen, is a water-based, one part, self-crosslinking, aliphatic polyurethane/acrylic non-yellowing topcoat. MasterClear is formulated with both UV absorbers and UV inhibitors and slip aids, to create the best possible protection for Metallic Paint Collection paints without affecting the metallic shimmer. The inherent high abrasion resistance of MasterClear also extends the service life of Metallic Paints on high-traffic interior surfaces and exceeds 3,000 scrub cycles. **Note:** Other clear topcoats may dull and otherwise ruin the shimmering appearance of Metallic Paint Collection paints.

Coverage – One gallon/3.78 liters will cover approximately 320 to 400 square feet/30 to 37 square meters. Approximately 1.5 mils dry film thickness per coat. A minimum of 3 mils dry film thickness is required for hide and full color development. Check label for additional information on color specific hiding and coverage characteristics.

Clean Up – Clean brushes, rollers, tool, and equipment with soap and warm water immediately after use. Do not reuse containers and properly dispose of empty containers.

Material VOC - Metallic Paint Collection Paints are compliant under SCAQMD Rule 1113, under the Faux Finish Category and contain <180 grams per liter of VOC, regulatory measurement. The VOC content for each color is available upon request. Metallic Paint Collection Paints contain No Hazardous Air Pollutants.

Handling & Storage – Close tightly all containers when not in use. Store in a cool dry place away from direct sunlight. **Do not freeze.** If Metallic Paint Collection paints become frozen, allow the paint to completely thaw and come to room temperature before use. **Stir thoroughly before use.**

Disposal – Dispose of unused or unwanted product in accordance with local laws regulating water-based coatings.

Health & Safety – Use in a well-ventilated area. Avoid contact with eyes. Wash hands thoroughly with soap and warm water after use. Do not take internally. When spraying or sanding, use a properly-fitting, NIOSH approved respirator per the manufacturer's instructions. **Warning!** If you scrape, sand, or remove old paint, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead

Skin contact: Thoroughly wash with soap and warm water before the coating dries. Individuals with sensitive skin may require gloves.

Eye contact: Rinse with clean water for 15 minutes. Seek medical attention.

Inhalation: To help prevent irritation, use only in well-ventilated areas. If irritation occurs, move to fresh air. If irritation persists, seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

Read the Material Safety Data Sheet for Additional Health and Safety Information.

Warranty – This product will perform as claimed if directions are followed. Directions are as complete as possible, but cannot encompass all conditions, applications, techniques, and/or surfaces, which are beyond our control. Warranty is limited to replacement or refund value of product actually used, if such product proves defective within two years of manufacture. No other warranty is expressed or implied.

Technical Assistance – For additional technical assistance contact our Technical Department at 818-683-0201 or e-mail technical@modernmasters.com.

Disclaimer: Modern Masters, Inc. believes, to the best of its knowledge, information, and belief, the information contained herein to be accurate and reliable as of the date of this material safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials and makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained

Container Size	Case Pack	Case Weight Under
1 six ounce	6	4 lbs.
1 Quart	6	12 lbs.
1 Gallon	2	24 lbs.
1 5 Gallon	1	60 lbs.



36 SERIES—ZERO VOC ACRYLIC POLYURETHANE



PHILOSOPHY

TO DESIGN, PRODUCE, AND DELIVER THE HIGHEST ECO-FRIENDLY PRODUCTS OFFERING UNMATCHED DURABILITY, AND QUALITY DESIRED BY OUR CUSTOMERS.

DEFT'S 36 SERIES ACRYLIC POLYURETHANE COATINGS ARE DESIGNED TO PROVIDE THE ULTIMATE EXTERIOR PERFORMANCE, EASE OF APPLICATION AND MINIMAL EMISSIONS OF REGULATED VOLATILE ORGANIC COMPOUNDS (VOC) AND VOLATILE HAZARDOUS AIR POLLUTANTS (VHAP'S)

THE ZERO OPTION

- No Regulated VOC Solvents
- HAP's Free & Heavy Metal Free Formulations
- Excellent Chemical and Solvent Resistant
- Resistant to Hydraulic Fluids, Lubricating Oils, Diesel Fuel & Water
- Excellent Gloss & Color Retention
- Quick Dry with Addition of Accelerator or low temperature oven cure
- Easy to Apply & Excellent flow and leveling
- Meets most stringent air quality regulations including SCAQMD for Industrial & Architectural Coatings
- A Full Range of Gloss, Semi-Gloss & Flat Colors

Physical properties, Surface Preparation, Primer and General Application Guidelines on reverse side of this technical bulletin.



Intended Applications: Theme Park, Industrial Maintenance, Transit and Heavy Equipment Applications

Pot Life:
Fast Dry Theme Park Coating 1-2 hours at 75° ± 5°F
Standard Transit Coating 1-2 hours at 75° ± 5°F
 Use IS-280 to extend Pot-life 0-4 oz/gal

Viscosity: (initial)
Full Gloss Colors -20 - 30 seconds # 2 Zahn Cup
Semi-Gloss, Satin & Flat Colors 25 - 40 seconds # 2 Zahn Cup

Induction Time None required

Application Thickness 1.8 – 2.4 mils dry film thickness

Recommended Storage
 Store indoors between 55 – 90°F in original unopened containers. Standard formulations have a 2 yr. minimum shelf-life.

Blending & Brushing
 Add 1-7 oz/gal of IS-277 or 85X168 brushing reducer. (VOC <100 g/l at 7 oz/gal)

Blending Solvent IS-260 can be used for spray applications. 4-6 oz./gal (VOC <100 g/l at 7 oz/gal)

Dry Film Density: 2.5 – 4.0 g/sq.ft.

Theoretical Coverage per gallon kit as applied: 650- 750 sq. ft @ 1mil DFT



Characteristics*	Base	Catalyst	Admixed
Weight per gallon (lbs)	9 - 11	10.0	9 - 11
% Solids by weight	38 - 58%	49.5%	42- 60%
% Solids by volume	38 - 50%	50.9%	42-52%
Coatings VOC (g/L)	0 g/l	0 g/l	0 g/l
Coatings VOC (lbs/gal)	0.0	0.0	0
Material VOC (g/L)	0 g/l	0 g/l	0 g/l
Material VOC (lbs/gal)	0.0	0.0	0.0

*Characteristics are calculated based on product formulas and ingredient characteristics as reported to Deft, Incorporated by raw material suppliers. Values reported are not specification values. They are presented for general information only.



36 SERIES—ZERO VOC ACRYLIC POLYURETHANE

Mix Ratio **3 parts 36 Series Base by volume to
1 part 36X194CAT or 80X040 Catalyst by volume**

PHYSICAL PROPERTIES -Typical Properties after one week air dry – tested on Bonderite 1000 CRS. Properties may vary by color. For color specific information, contact your Deft Technical Representative.

Cross Hatch Adhesion: No Failures **MEK 25 Double Rub** –Pass
Impact Resistance: Direct = 60 in.lb.
Pencil Hardness: 2H minimum **Flex 32% Elongation** -Pass
Cross Cut Adhesion: >4 ASTM-D-3359
Humidity Resistance – ASTM-D-2247 Rated >8 (240 hrs)
Salt Spray ASTM-B-117 (240 hours) <3 mm creep from scribe
QUV B Lamps—1000 hrs. (based on 36R032 Safety Red) DE cmc <1.00
Xenon Arc—3000 hrs. (based on 36W021E White) DE cmc <1.00
WeatherOmeter Testing 1560 kJ/m² (based on 36Y020 Highway Yellow)
 Gloss Retention - 60° specular - >90 20° specular > 85%; DE cmc <1.00

DRY TIMES Note: Dry times above were established at room (ambient) temperatures, 75° ± 5°F and 50% ± 10% Relative Humidity.

Tack Free 1-2 hours, minimum (theme park formulations)
 2-4 hours (transit & general industrial formulations)
Dry Hard 4-6 hours (transit & general industrial formulations)
Dry to tape 8-12 hours (transit & general industrial formulations)

Accelerator suggested is 85X116 or 85X107E . As addition of accelerators affects both dry time and pot-life, See product bulletin for 85X116 or 85X107E or talk to your Deft Technical representative before use. To extend pot-life, use IS-280. Addition of 4 oz/gal will increase pot-life 1-3 hours. VOC will be approximately 35 g/l

FORCE DRY SUGGESTIONS (based on 20 gauge steel)

For dry to stack conditions only. Allow a minimum of 15 minutes flash off time at ambient temperatures prior to exposing painted parts to high temperatures. Complete testing should be done prior to use. Below are suggested starting points. Other variables may affect these cure schedules.

Temperature	Time
120°F	45 minutes
140°F	30 minutes
160°F	20 minutes
180°F	15 minutes

Suggested Primers & Dry Film Thickness

02W052 Off White Epoxy Primer (<100 g/l VOC, as applied)
 Direct-to-Metal High Build Application 3.0 –6.0 mils DFT
 Recoat— After prep and spot prime 1.5—3.0 DFT

09 Series Polyurethane Primers & Surfacer - (Zero VOC & <240 g/l)
 1.0-2.0 mils DFT or as required by specifications.

Topcoats Typical Hiding Dry Film Thickness (DFT) MILS
 Dark & Mid Tone Colors 1.4 - 1.8
 Light Colors & Whites (Pastels) 1.8 - 2.2
 Bright Colors (Reds, Yellows Oranges) 2.2 –3.0

SAFETY INFORMATION: Refer to the product label and Material Safety Data Sheet (MSDS) for each component for recommendations on Personal Protective Equipment and Proper Handling.

DOT INFORMATION: PAINT, FLAMMABLE LIQUID 3, UN-1263, PACKING GROUP II.



PREPARATION FOR PAINTING Be sure parts are free of grease, oil, rust or dirt. Sand and or grind remaining surface imperfection. Use clean cloth or solvent wipe to remove any residual smut or dirt. IS-279, IS-299, IS-300, IS-302 or acetone can be used for Zero VOC Surface Cleaners on many substrates. Remove any mildew with tetra-sodium phosphate and bleach; Correct surface defects; Seal surfaces that might cause staining through topcoat.

STEEL - Clean metal well. Remove grease, mill scale, weld spatter, oil, dirt and other contaminants. With hot rolled steel, scale and surface oxidation must be removed by shot or media blasting, wire brush or chemical means. Older, weathered surfaces or surfaces with multiple coats of old paint should be bead or sand blasted. For structural steel, a 1.0 to 1.5 mil profile is suggested. Cold rolled steel typically requires a wash to remove forming oils and grease. An iron phosphate or zinc phosphate pretreatment will help prevent corrosion. If chemical treatment is not available clean well and use metal prep solutions and/or pretreatment primer. When possible for steel surfaces, a combination cleaner/ iron phosphate pretreatment & rinse is suggested. Deft 02W052 Epoxy or 09 Series Polyurethane primers are recommended.

ALUMINUM - If not chemically treated, new aluminum usually requires pretreatment or primer. For aluminum surfaces a combination cleaner/ acid etch is suggested, especially in applications where no other chemical treatment is used. Deft 02W052 Epoxy Primer is recommended.

GALVANIZED - For galvanized surfaces, a combination cleaner/acid etch is suggested, especially in applications where no other chemical treatment is used. This will help passivate galvanized surface to promote better adhesion between primer and substrate. Deft 02W052 Epoxy Primer is recommended.

PLASTICS & COMPOSITES - As plastic substrates vary in chemical composition and surface release agents used, adhesion to each substrate must be checked. A primer may be required. Light scuff sanding will help ensure maximum adhesion. Deft's zero VOC products may contain acetone. Verify with your customer that acetone will not adversely affect your particular plastic or composite substrate. Deft 02W052 Epoxy Primer or 09 Series Zero VOC primers are recommended.

PREVIOUSLY PAINTED SURFACES – Use wire brush to remove old flaking paint and rust. Use proper precautions, previous coatings may have contained lead or chromates. Sand surface smooth with at least 220 grit followed by 320 grit final sand. Wipe surface clean with either tack cloth or SCAQMD approved wiping solvent. 02W052 Epoxy High Build Primer is suggested for areas where there is exposed metal and also for sanded and cleaned previously painted surfaces. 09 Series Polyurethane Primers also can be used directly to must be sanded and clean previously painted surfaces. Review your particular finishing specifications to verify primer selection for your application.

SANDING RECOMMENDATION: Regardless of the metal preparation, a light scuff sand with 320 grit sandpaper will enhance primer adhesion to substrate or previously applied primer or topcoat.

EQUIPMENT CLEANING: Clean or flush all equipment immediately after use. Use Deft's acetone, IS-299 or IS-279 Solvent to remove any residual liquid coating from equipment. Once material has cured, use an approved chemical paint removal system to strip primer from parts and equipment.

APPLICATION EQUIPMENT: Air, Air Assisted Airless, HVLP, Electrostatic spray equipment may be used to apply this material. Contact your equipment manufacturer for more specific information on your spray applications and recommendations on hose diameter and lengths.