



# Technical Data Sheet

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## Colorfast EX ZERO VOC Acrylic Polyurethane Topcoats

Designed for Industrial Maintenance and Architectural Applications

Formulated to 0 grams/liter VOC Content (Exempt Solvents per CARB, SCAQMD, USEPA)

**Gloss Clear – CFEXU10109**  
**Satin Clear – CFEXU10103**

**Matte Clear – CFEXU10101**

***THIS HIGH PERFORMANCE, TWO COMPONENT POLYURETHANE PRODUCT LINE WAS DESIGNED PROVIDE EXCELLENT EXTERIOR PERFORMANCE AND MINIMAL EMISSIONS OF REGULATED VOLATILE ORGANIC COMPOUND (VOC) AND VOLATILE HAZARDOUS AIR POLLUTANTS (VHAP's)***

**Tintable Bases** can be used to create bold and vibrant paint colors when used with *Colorfast EX ZERO VOC* Colorants or other approved Zero or low VOC colorants. This system is specifically formulated with the finest ingredients that are resistant to ultraviolet degradation combined with highly fade resistant pigments. Versatile application properties allow architects and contractors to complete projects with a durable paint finish that will last for years. Clear Tintable Bases are available in multiple sheen levels. This system can be used to create custom colors for any project. System was designed to be compatible with commercial available solvent borne colorant systems.

### General Properties

- Formulated Application VOC Content – 0 g/L
- 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 or low temperature oven cure
- Easy to Apply & Excellent flow and leveling
- Meets most stringent air quality regulations including CARB Rules & SCAQMD 1113 for Industrial Maintenance Coatings

### VOC Information

Based on formulation data on components supplied to Modern Masters, both the Coating VOC and Material VOC Contents are 0 g/L. When tested according methods used by CARB, SCAQMD and USEPA, a Coating VOC should be <30 grams per liter.

**PHYSICAL PROPERTIES** - Typical Properties after one week air dry – tested on Bonderite 1000 CRS. Properties may vary by color

**Cross Hatch Adhesion:** No Failures over approved primers or properly prepared & pretreated metal surfaces.

**MEK 25 Double Rub:** Pass

**Impact Resistance:** Forward 60 in.lb.  
Reverse 30 in.lb.

**Pencil Hardness:** 2H – 4H

**Salt Spray:** ASTM-B-117 (240 hours) <1.5 mm creep from scribe

**QUV B Lamps – 1000 hrs:** DE cmc <1.00 (Gloss White)

**Mandril Bend:** 1/8" – Pass

**Topcoats:** 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

**Mixing Instructions:** Mix three (3) parts Colorfast EX Base (Component A) with one (1) part Activator EXU10000 (Component B) by **volume**. Mix well (Hand Stir) & ready to use. No induction time required.

### Mixed Viscosity

Initial: Full Gloss Colors -25-40 seconds # 2 Zahn Cup  
Satin & Flat Colors – 30-50 seconds # 2 Zahn Cup

**Pot Life** – 2-3 hours at 75° ± 5°F

**Spread Rate:** Theoretical yield is 400 square feet/gallon of mixed coating at 2.0 mils dry film thickness per coat. Depending upon color, 1.8-3.0 mils dry film thickness is required for hide and full color development. (2 wet mils = 1 dry mil)

**Dry Times:** Dry times @ at 75° ± 5°F and 50% ± 10% Relative Humidity:

Tack Free	2-4 hours
Dry Hard	6-10 hours
Dry to tape	8-12 hours
Recoat Time	2-48 hours
Full Cure	7 days

**Force Dry:** For dry to stack conditions only. Allow a minimum of 15 minutes flash off time at ambient temperatures prior to exposing painted parts to elevated 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

**Surface Preparation:** Follow standard practices and procedures for properly preparing surfaces for the application of traditional solvent based 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 of primers** 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:

**Sierra Griptec by Rust-Oleum - 0 g/L VOC**  
General Purpose Waterborne Acrylic

**Sierra S-70 by Rust-Oleum - 0 g/L VOC**  
Substrates: Aluminum and Ferrous metals

**Sierra MetalMax by Rust-Oleum - 0 g/L VOC**  
Substrates: ferrous metals, DTM direct to metal and window and door mullions

### 9100 DTM High Build Epoxy by Rust-Oleum - 100 g/L VOC

Substrates: DTM or to concrete

### ROC Prime 100 by Rust-Oleum - 100 g/L VOC

Substrates: Epoxy Hybrid Water-based

**Application Conditions:** Do not apply in temperatures below 50°F/10°C. Note: Lower temperatures and/or higher humidity will lengthen the dry and cure times. Higher temperatures and/or lower humidity will speed up the dry and cure times.

**Application:** These topcoats can be brushed, rolled, or sprayed onto any paintable, properly primed, interior or exterior surface. Stir the paint well before using.

**Brushing:** Use a high-quality brush recommended for solvent or oil based paints. Usually, no reduction is required for brush or roll application.

**Rolling:** When rolling, work in approximately 4-foot wide sections, keeping a wet edge.

**Spraying:** Use an HVLP, Airless spray unit or an Air-Assisted Airless spray unit. Use equipment manufacturer's recommended tip sizes for solvent borne paint. Thin as needed—but carefully—as over-thinning may result in loss of hide and a reduction of the desired appearance. Typically, 10-25% reduction with CFEXR10001 will provide maximum atomization and flow characteristics. When spraying, use a properly-fitted NIOSH approved respirator per the manufacturer's instructions.

**Clean Up:** Clean brushes, rollers, tool, and equipment with compliant wash solvent immediately after use. Do not reuse containers and properly dispose of empty containers.

As these products have a 2-3 hour pot-life, all application equipment, spray guns, pressure pots, etc. should be cleaned up immediately after use. Only activate enough material to be used within 2 hours of mixing.

### Environmental & Safety Considerations

**Handling & Storage:** Close tightly all containers when not in use. Store in a cool dry place, away from direct sunlight. Mixed paint or activator will react with water or alcohols. **Only use urethane grade reducers or solvents with these products.**

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

**Health & Safety:** These products are designed for professional and industrial use only. 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 co-workers by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://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. As a result of previous repeated overexposure or a large single dose, certain individuals can develop isocyanate sensitization, which will cause them to react to exposure level below the TLV value of isocyanates.

**Ingestion:** Do not induce vomiting. Seek medical attention.

**DOT/IATA Information:**

UN/NA Number: UN1263  
Proper Shipping Name: Paint  
Hazard Class: Flammable Liquid, 3  
Packing Group: II  
Hazard Subclass: N.A.  
Resp. Guide Page: N.A.

**Flash Point:** -4 °F (TTC) -20 °C

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

**Associated Activator, Reducer and Additive**

<u>ITEM</u>	<u>SKU</u>	<u>SIZE</u>
Activator	CFEXU10000	32 oz.
Reducer	CFEXR10001	32 oz.
Accelerator	CFEXA10601	32 oz.

**Colorfast EX ZERO VOC Colorants**

Colorants or blends of Colorants and Colorfast EX Bases can be activated with EXU10000 Activator in the same 3:1 ratio as the clear bases to form tough, durable color coat finishes.

<u>ZERO VOC Colorant</u>	<u>SKU</u>	<u>SIZE</u>
Tinting Black	CFX10701	Gallon
Red Oxide	CFX10702	Gallon
Phthalo Blue GS	CFX10704	Gallon
Shading Black	CFX10705	Gallon
Phthalo Green BS	CFX10706	Gallon
Phthalo Blue RS	CFX10707	Gallon
Bright Red	CFX10709	Gallon
Jet Black	CFX10711	Gallon
Magenta	CFX10713	Gallon
Yellow Oxide	CFX10715	Gallon
White	CFX10716	Gallon
Organic Yellow GS	CFX10728	Gallon
Organic Yellow RS	CFX10729	Gallon
Quin Red BS	CFX10742	Gallon
Orange	CFX10769	Gallon

**Flash Point:** 109°F for all Colorants. Contain PCBTF. No reportable VOC Components

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**For MSDS and Technical Data Sheets for products mentioned in this go to [www.modernmasters.com](http://www.modernmasters.com) or contact your Modern Masters technical representative.**