



Technical Data Sheet

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Colorfast EX ZERO VOC Acrylic Polyurethane Tinting Bases

Designed for Industrial Maintenance and Architectural Applications

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

Semi-Gloss Neutral Base – CFEXU10153GAL
Semi-Gloss White Tint Base – CFEXU10154GAL
Semi-Gloss Deep Base – CFEXU1055GAL

Gloss Neutral Base – CFEXU10163GAL
Gloss White Tint Base – CFEXU10164GAL
Gloss Deep Base – CFEXU10165GAL

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 *Chromaflo 844 Series* 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

- Meets most stringent air quality regulations including CARB Rules & SCAQMD 1113 for Industrial Maintenance Coatings
- Modern Master Tinting Bases Formula Coating & Material VOC Content = 0 g/L
- When tinted with Chromaflo 844 Series Colorants according color formulation guidelines Coating & and then tested according methods used by CARB, SCAQMD and USEPA, applied Coating VOC have tested less than 100 grams per liter.
- 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

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

60° specular Gloss: ASTM D523

Gloss Bases – 90 units Minimum

Semi-Gloss – 45-60 units

Cross Hatch Adhesion: ASTM D3359 No Failures over approved primers or properly prepared & pretreated metal surfaces.

Solvent Double Rub: ASTM D4752

MEK & IPA - Pass 100 Rubs

Impact Resistance: ASTM D2784

Forward 60 in.lb.

Reverse 30 in.lb.

Pencil Hardness: ASTM D3363 2H – 5H

Salt Spray: ASTM-B117 (650 hours) <1.5 mm creep from scribe

QUV – 3000 hrs: ASTM D4587/D154 Cycles 1 and 2
DDE cmc & DE* =1.0 (Gloss White)

Gloss Loss 60° <2% Gloss Loss 20° <3.6%

Mandril Bend: ASTM D522

1/8" – Pass NO cracking, flaking or adhesion loss

APPLICATION INFORMATION

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: Gloss & Semi-Gloss Colors -25-40 seconds # 2 Zahn Cup at 77°F

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: **ASTM D1640-03**

Tack Free	1-3 hours
Dry Hard	3-4 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

Salt Spray Ratings ASTM B117 using Rust-Oleum S70, ROC Prime 100 & SC9100

Rusting – 9-10 Blistering – 8-9 Creep – 7-8

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

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 Safety Data Sheets for Additional Health & Safety Information

Container Fills for Modern Master Tinting Bases

ITEM	SKU	SIZE
CFEXU10153 S/G Neutral Base		80 OZ
CFEXU10154 S/G White Base		92 OZ
CFEXU10155 S/G Deep Base		88 OZ
CFEXU10163 Gloss Neutral Base		80 OZ
CFEXU10164 Gloss White Base		92 OZ
CFEXU10165 Gloss Deep Base		88 OZ

Associated Activator, Reducer and Additive

ITEM	SKU	SIZE
Activator	CFEXU1000032	32 oz.
Reducer	CFEXR1000132	32 oz.
Accelerator	CFEXA1060132	32 oz.
Brush & Roll Additive	CFEXU1060332	32 oz.

Chromaflo Color Wheel Colorants

CHROMAFLO	PART #	CODE
White	844-0061	TW
Quin Red	844-0451	QR
LF Orange	844-0982	UO
Red Oxide	844-1063	RO
Burnt Umber	844-1352	BU
Yellow Oxide	844-1863	YO
Medium Yellow	844-2555	MY
Organic Yellow	844-2852	OY
Phthalo Green	844-5558	PG
Phthalo Blue	844-7262	PB
Quin Violet	844-9451	QV
Lamp Black	844-9955	LB

Consult your Chromaflo Colorant Representative for availability of additional colorants and technical data on their colorants.

For SDS and Technical Data Sheets for Modern Masters and Rust-Oleum products mentioned in this bulletin go to www.modernmasters.com or contact your Modern Masters technical representative.