SHERWIN-WILLIAMS

AEROSPACE COATINGS

PRODUCT DATA

Chrome Hazard Free Epoxy Primer / Surfacer

CM0481968

ADVANTAGES

- Provides corrosion protection without the use of chromate.
- Convenience – This product can be used as both a Primer and Surfacer. One product for both types of application.
- Qualified to SAE AMS3095.
- Qualified to Dassault's High Solids External Paint Scheme specification DGQT 0.4.2.0374
- Flows out to a nice, smooth surface.
- Eliminates the need for a sanding guide coat as the product changes gloss and color as it is sanded.
- Ideal for business jet and general aviation applications.
- Designed to work with Sherwin-Williams topcoat systems.
- Great sanding characteristics.
- Contains less than 2.9 lbs. of VOC per mixed gallon or 350 grams per liter.
- Excellent topcoat gloss hold out

DESCRIPTION

CM0481968 is a high performance, low VOC, two-component, corrosion inhibitive epoxy Primer and Surfacer that contains no chromate. This high-performance epoxy primer ideal for use on business jet and general aviation aircraft and has excellent recoat/intercoat adhesion with Sherwin-Williams topcoat systems.

COATING PROPERTIES

	Sprayable
Solids:	
By weight	59.0 ± 1.0%
By volume	38.9 ± 1.0%
Wt./Gal.	10.5 ± 0.5 lbs.
Sp. Gravity	1.27 ± 0.06
Color	Gray
Viscosity–Sprayable	
Gardner Signature #2 Zahn Cup	16-22 seconds
ISO 2431 3mm Cup –Sheen	47-50 seconds
Admixed V.O.C. (Mixed 4:1: 1)	
U.S. Exempt Solvents:	
CM0110944 or CM0110933	<2.9 lbs./gal. (350 g/L)
CM0110099	<3.2 lbs./gal. (383 g/L)
Non-Exempt Solvents:	<4.6 lbs./gal. (552 g/L)
Pot Life	
at 77°F / 25°C	4 Hours
at 95°F / 35°C	2 Hours
Theoretical Coverage	
Per dry mil	624 ft.2 / gal.
Per 25 microns	15.3 m2 / L
Dry Film Weight	
Per dry mil	0.01 lbs. / $ft.^2$
Per 25 microns	48.2 g/ m^2

SHELF LIFE

Shelf Life is applicable only for materials stored in unopened and undamaged original factory filled containers.

Minimum Storage Temp: 40ºF / 4ºC
Maximum Storage Temp: 100ºF / 37ºC

CM0481968:	3 years	CM0110944	7 years
CM0120828:	2 years	CM0110099:	7 years
CM0140968:	2 years	CM0110933:	7 years

SURFACE PREPARATION

To ensure proper primer adhesion to the substrate, all substrate to be prepared, different methods should be used. There are a variety of processes to prepare these substrates for primer and painting.

Sherwin-Williams primers are designed to go over various treatments (i.e., alclad or anodized aluminum, composite, fiberglass, magnesium, and stainless steel). Please refer to recommendations for cleaning, application, and preparation before painting to the manufacturer of the treatment.

MIXING INSTRUCTIONS

Shake primer component for 15 minutes before admixing.

Admix by Volume:

4 Parts	Epoxy Primer **CM0481968**
1 Part	Epoxy Adduct **CM0120828**
1 Part	Reducer **CM0110933 or CM0110944 or CM0110099** (See Below for Options)

Add the Adduct into the Primer Component, stir thoroughly.

THINNING INSTRUCTIONS:

Corrosion Primer Application (Non-Sand System)
The product can be reduced using up to 1 part of the following Reducers:

- CM0110944 - Fast
- CM0110099 - Medium
- CM0110933 - Slow

Surfacer Application (High Build System)
The product can also be reduced by 10% with:

- CM0110944 US Exempt Reducer – For small parts or cool conditions
- CM0110099 Medium Reducer
- CM0110933 – For full repaints or hot conditions

Ready to Spray product should be allowed a 30-minute induction time for optimum application performance.

It is recommended to filter strain admixed and reduced primer before placing material in containers for spraying.

GUIDECOAT COLORANT TO ASSIST IN SANDING (OPTIONAL)

To create color contrast when sanding, add up to 0.5 fl. oz. of D59BC1 Phoenix Black Colorant per gallon of CM0480920 Primer base. Add the colorant to the base prior to admixing. Post adding the colorant to existing mixed material is also acceptable.

EQUIPMENT

This product can be applied using conventional air spray HVLP, Graco electrostatic air-spray or air-assisted airless. Please consult your Sherwin-Williams representative for specific equipment settings.

Electrostatic users: Ensure that the aircraft is properly grounded for potential static buildup.

PRIMER APPLICATION

Best spray application results are obtained by applying one light continuous closed film cross coat. The recommended dry film thickness is 0.6 – 1.2 mils (15-30 microns).

1. Make sure pots, guns, and lines are purged and cleaned.
2. Mix thoroughly and filter strain before spray applying.
3. Equipment Settings (i.e. Conventional settings):
   Spray atomizing pressure: 50-60 psi (3.45-4.15 bar)
   Pot pressure: 10-12 psi (0.69 – 0.83 bar) using a 60' fluid hose (3/8" diameter)
   Delivery Rate: 8-10 fluid oz (236-295 mL) per minute

Always air-blow and tack-wipe the surfaces to be painted. Electrostatic users: Ensure that the aircraft is properly grounded for potential static buildup.

PRIMER DRYING SCHEDULE

Dry times are based on the dry film thickness of 0.6-1.2 mils (15-30 microns).

Note: Solvent selection does not effect dry times below.

Air Dry Times
(75°F /25°C and 50% RH)

	Min.	Max.
To Recoat	2 Hours	72 Hours*
To Lightly Sand	6 Hours	
To DA (Orbital) Sand	8 Hours	

Force Dry:

(140ºF (60ºC)	Min.
To sand or apply topcoat	1 Hour

* If an intermediate primer or topcoat is not applied within 16 hours of primer application, light scuff sanding using P240, P320 paper &/or red abrasive pads will be required for good intercoat adhesion.

SURFACER APPLICATION

Apply up to 3 wet single pass coats allowing one hour between coats. Total recommended dry film thickness up to 5.0 mils dry (125 microns). It is preferred to allow overnight cure at 77°F/25°C for maximum cure properties. Constant airflow is recommended. Apply the 2nd and 3rd coat that contains CM0140968 Surfacer Colorant.

NOTE: Application of these product systems requires recommended temperature / humidity conditions and film thickness ranges. The material, hangar, and aircraft skin temperature should be no lower than 55ºF / 13ºC before, during, and after application.

SURFACER DRYING SCHEDULE

Dry times are based on the dry film thickness of 5.0 mils (125 microns).

Air Dry Times (75°F / 25°C and 50% RH)	Min.
To Lightly Sand	8 Hours
To DA (Orbital) Sand	12 Hours

Force Dry: (120ºF (50ºC)	Min.
Note: Allow a 2 hour flash prior to bake	4 Hours
To sand or apply topcoat	

Note: Lower temperatures, heavy film thickness, and poor air movement will extend the dry time.

SANDING RECOMMENDATIONS

Mechanical DA (orbital) sanding or hand sanding of this product works well with 240 or 320 grit sandpaper. Proper sanding is the key to good intercoat adhesion and a smooth appearing surface.

Note: Once sanded, topcoat within 72 hours.

If the cured epoxy primer is inadvertently sanded through, a light coat of corrosion primer as a spot repair 0.5 mil (12 microns) will be required prior to spraying topcoat. Allow primer to dry a minimum of one hour before overcoating.

EQUIPMENT CLEANUP

Use clean Ketone–type solvents such as CM0110308 MEK. Do not allow material to cure inside equipment.

PRODUCT INFORMATION

Confirm compliance with national, state, and local air quality rules before use.

Product Data Sheets *are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin–Williams Company cannot make any warranties as to the end result.*