



Corlar® 13580S™ Non-Chromate Epoxy Primer-High Build



GENERAL

DESCRIPTION

A chromate-free, epoxy primer that meets MIL-PRF-23377 requirements, and is designed to provide excellent adhesion and corrosion resistance for aerospace applications where a chromate-containing primer is not acceptable. It is formulated for direct-topcoat applications to deliver excellent finished appearance due to minimal primer texture. Its high build characteristics allow DFT's of 2 to 4 mils. This high-solids primer is also designed to provide productive dry times and has an RTS VOC of less than 2.8 lbs. / gal.

RECOMMENDED USES

Corlar 13580S is recommended for use as a primer over properly treated substrates including aluminum, aluminum alloys, and steel. It is compatible with most epoxy and urethane surfacers and polyurethane topcoats. Corlar 13580S is recommended for use with:

| | |
|--------------------|--|
| Pre-Treatment | 13206S™, Alodine® 600 or 1200 treatments |
| Primers | Corlar 13550S™ |
| Topcoats | Imron® AF3500™, Imron AF400™ |
| Basecoat/Clearcoat | Imron AF700™ / AF740™ |

SPECIFICATIONS

- Meets or exceeds performance per MIL-PRF-23377J; Type I, Class N.
- Corrosion resistance surpasses 2,000 hours salt spray (AS B117) over Alodine 600

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.



MIXING

COMPONENTS

Corlar 13580S Non-Chromate Epoxy Primer
Corlar 13180S™ Epoxy Activator
13756S™ VOC-Exempt Reducer

MIX RATIO

Thoroughly mix 13580S prior to activation. Filter activated material prior to application.

| <u>Components</u> | <u>Primer</u> | <u>Surfacer</u> |
|-------------------------------|------------------------|------------------------|
| | <u>Parts by Volume</u> | <u>Parts by Volume</u> |
| Corlar 13580S Epoxy Primer | 4 | 4 |
| Corlar 13180S Epoxy Activator | 1 | 1 |
| 13756S VOC-Exempt Reducer | 1 | ½ |

VISCOSITY

18-22 sec in a Zahn #2 cup

Listed ranges were established using GARDCO EZ Zahn (AS) Cups, measurements using other Zahn type cups may provide different results.

INDUCTION TIME

30 minutes

POT LIFE

8 hours at 70°F (21°C).

ADDITIVES

Anti-Crater Additive - Add up to 1 oz. 13813S per RTS gallon



APPLICATION

SUBSTRATES AND SURFACE PREPARATION

Substrate must be properly prepared for application. Aluminum surfaces must be clean and water-break free, followed by conversion coatings or pretreatment.

GUN SETUP

Corlar 13580S can be applied with conventional, HVLP, and electrostatic spray equipment using pressure or gravity fluid delivery.

Conventional Fluid Tip

| | |
|--------------|-----------------------------|
| Pressure Pot | 1.2 mm-1.5 mm (.047"-.059") |
| Gravity Feed | 1.3 mm-1.6 mm (.051"-.063") |

HVLP

| | |
|--------------|-----------------------------|
| Pressure Pot | 1.0 mm-1.4 mm (.039"-.055") |
| Gravity Feed | 1.2 mm-1.5 mm (.047"-.059") |

FLUID DELIVERY

| | |
|----------|--------------|
| Primer | 8-10 oz/min |
| Surfacer | 12-16 oz/min |

AIR PRESSURE

| | |
|--------------|-------------------------|
| Conventional | 55-65 psi atomizing air |
| HVLP | 25-35 psi atomizing air |

ENVIRONMENTAL CONDITIONS

Substrate and ambient temperature must be between 50°F (10°C) and 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%. Heating activated material above 110°F (43°C) may cause gelation.

APPLICATION

- Apply using a single medium-wet coat to 2 to 3 mils wet, 0.8 to 1.2 mils dry film thickness.
- For a surfacer, apply 2 medium wet coats for 3 to 4 mils dry film thickness, allow a 45 minute flash between coats.

CLEANUP SOLVENTS

Axalta 107™ Low VOC Gun & Equipment Cleaner
Axalta 105™ Gun & Equipment Cleaner



DRY TIMES

AIR DRY

At 70°F (21°C) Dependent upon Film Build

| | |
|----------------|-------------------|
| Dry to Touch | 30 minutes-1 hour |
| Dry to Tape | 2-6 hours |
| Dry to Topcoat | 2-6 hours |

FORCE DRY

At 130°F (54°C)

| | |
|----------------|-------------------------|
| Flash Before | Force Dry none required |
| Dry to Touch | 15 minutes |
| Dry to Tape | 1 hour |
| Dry to Topcoat | 1 hour |

RECOAT

Recoat window is 2-24 hours for Corlar 13580S which has been air dried or force dried for up to 1 hour at 130°F (54°C). When used at higher film builds, sanding is recommended.



PHYSICAL PROPERTIES

VOC

| | Less Exempts (LE) | As Packaged (AP) |
|-------------------------------|-------------------|------------------|
| Corlar 13580S | 2.7 lbs./gal | 2.3 lbs./gal |
| RTS Corlar 13580S as primer | 2.7 lbs./gal | 1.9 lbs./gal |
| RTS Corlar 13580S as surfacer | 2.8 lbs./gal | 2.1 lbs./gal |

FACTORY-PACKAGED PRIMER

| | |
|------------------------|---------------------------------|
| Color | Light Gray |
| Closed Cup Flash Point | 20°F-73°F |
| Shelf Life | 2 years (Unopened at 50°-110°F) |

READY-TO-SPRAY

| | Primer | Surfacer |
|----------------------|-----------------------------------|-----------------------------------|
| Theoretical Coverage | 674 ft ² /gal at 1 mil | 735 ft ² /gal at 1 mil |
| Weight Solids | 59.8% | 63.5% |
| Volume Solids | 42.0% | 45.8% |
| Gallon Weight | 10.46 lbs./gal | 10.75 lbs./gal |

DRY FILM

| | |
|----------------------------|---|
| Gloss | Eggshell to Satin |
| Recommended Film Thickness | 0.8-1.2 mils / 2.0-4.0 mils as a surfacer |

COATING PERFORMANCE

| | |
|---------------------------------|-----------|
| Corrosion Resistance | Very Good |
| Adhesion | Excellent |
| Chemical and Solvent Resistance | Very Good |
| Weatherability w/ Topcoat | Excellent |
| Topcoat Holdout | Excellent |
| Humidity Resistance | Excellent |
| Flexibility | Excellent |

VOC REGULATED AREAS

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Revised: January 2015

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