



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 50 to 100 µm. This high-solids primer is also designed to provide productive dry times and has an RTS VOC of less than 336 g/L

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™, 13238S™, 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 @ 21°C

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 21°C.

ADDITIVES

Anti-Crater Additive - Add up to 8 g 13813S™ per RTS litre.



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
Gravity Feed	1.3 mm-1.6 mm

HVLP

Pressure Pot	1.0 mm-1.4 mm
Gravity Feed	1.2 mm-1.5 mm

FLUID DELIVERY

Primer	240-300 mL/min
Surfacer	355-475 mL/min

AIR PRESSURE

Conventional	3.8-4.5 bar
HVLP	1.7-2.4 bar

ENVIRONMENTAL CONDITIONS

Substrate and ambient temperature must be between 10°C and 45°C. The substrate must be at least 3°C above the dew point. Relative humidity should be below 90%. Heating activated material above 45°C may cause gelation.

APPLICATION

- Apply using a single medium-wet coat to 50 to 75 µm wet, 20 to 30 µm dry film thickness.
- For a surfacer, apply 2 medium wet coats for 75 to 100 µm dry film thickness, allow a 45 minute flash between coats.

CLEANUP SOLVENT

Duxone® Gun Wash Solvent



DRY TIMES

AIR DRY

At 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 55°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 55°C. When used at higher film builds, sanding is recommended.



PHYSICAL PROPERTIES

VOC

	Less Exempts (LE)	As Packaged (AP)
Corlar® 13580S™	324 g/L	276 g/L
RTS Corlar® 13580S™ as primer	324 g/L	228 g/L
RTS Corlar® 13580S™ as surfacer	336 g/L	252 g/L

FACTORY-PACKAGED PRIMER

Colour	Light Gray
Closed Cup Flash Point	7°C-23°C
Shelf Life	2 years (Unopened at 10°-45°C)

READY-TO-SPRAY

	Primer	Surfacer
Theoretical Coverage	13.8 m ² /L at 30 µm	4.5 m ² /L at 100 µm
Weight Solids	59.8%	63.5%
Volume Solids	42.0%	45.8%
Specific Gravity	1.26 g/mL	1.29 g/mL

DRY FILM

Gloss	Eggshell to Satin
Recommended Film Thickness	20-30 µm / 50-100 µm 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 SDS 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 an approved air purifying respirator with particulate filters, complying with AS/ANZ 1716:2012 and gloves.