



# Corlar® 2.1 PR-P™ High Solids Productive Epoxy Primer For Use With FG-040, FG-041 or FG-042 Activators



## GENERAL

### DESCRIPTION

A high solids, two component, high build, VOC conforming (2.1 lbs./gal.) Low HAPS productive primer based on Axalta modified polyamide epoxy technology. The resulting primer is formulated to be highly durable with very fast dry times and to deliver excellent corrosion and chemical resistance.

### SUGGESTED USES

As a highly durable primer on properly prepared carbon steel, galvanized steel, stainless steel and aluminum where:

- Recoating in 30 minutes is required for maximum productivity.
- No induction time and long pot life will improve productivity.
- A smooth, sandable primer at 3 mils DFT for maximum appearance when topcoated is required.
- Application by brush and roller, in addition to spraying, may be necessary.
- Spray application with minimal dry spray is desired.
- Application at temperatures as low as 35°F.
- As a high build primer when using FG-042 High Build Activator.

Corlar 2.1 PR-P is intended to be used as a primer and should be topcoated.

### COMPATIBILITY WITH OTHER COATINGS

- Corlar 2.1 PR-P is highly compatible with most coating types. It may be used over most aged and hard cured coatings in good condition. Testing for lifting, bubbling and adhesion is recommended to assure compatibility with unknown coatings. Contact your Axalta representative for specific recommendations.

### NOT RECOMMENDED FOR

- Immersion service
- Large areas with surface temperatures higher than 85°F. (See additional note under application section.)

### PERFORMANCE PROPERTIES

(with appropriate topcoat)

Alkalis	Excellent
Solvents	Excellent
Acids	Very Good
Humidity	Excellent
Weather	Excellent (will chalk if left untopcoated)

### COLOR

525-880™ Red Oxide	525-886™ Black	525-882™ Buff
525-971™ ANSI 70 Grey	525-885™ ANSI 61 Grey	525-968™ White

### Activators

- FG-040 – Standard Fast Dry
- FG-041 – Low Viscosity-Plural
- FG-042 – High Build



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



## MIXING

### COMPONENTS

Corlar 2.1 PR-P – 525 Base	1 gallon container 100% Full (128 oz.)
Corlar FG-040™ Activator	1 gallon container 100% Full (128 oz.)
Corlar FG-041™ Activator	1 gallon container 100% Full (128 oz.)
Corlar FG-042™ Activator	1 gallon container 100% Full (128 oz.)

### MIX RATIO

Component	Part by Vol.
Corlar 2.1 PR-P - 525 Base	2
Corlar FG-040™, FG-041™ or FG-042™ Activator	1

### ACTIVATION

Using a shear mixer at low speed so to create a small vortex, mix 525 base. Using same procedure mix, FG-040™, FG-041™ or FG-042™ activators. Slowly add 1 part FG-040™, FG-041™ or FG-042™ Activators to 2 parts mixed 525 Base. Continue to mix at low speed using a shear mixer until thoroughly blended. You may begin painting immediately—there is no induction time.

### Reduction

No reduction is necessary for spray application. However, if atmospheric conditions produce an undesired appearance, then up to 5% reduction with T-1025™ or T-1021™ may be added. For brush and roll application, up to 5% of T-1025 should be added. If more reduction is required, consult your local Axalta representative.

### APPLICATION THINNERS

Normal Conditions	up to 5% T-1021
Hot or Windy Conditions	up to 5% T-1025
Brush or Roll	up to 5% T-1025

### POT LIFE

5 hours @ 75°F	2.5 hours @ 85°F
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## APPLICATION

### SURFACE PREPARATION

SSPC-SP-6 Commercial Blast Cleaning will provide very good performance. If not possible or practical, then Hand Tool Clean to an SSPC-SP 2 or Power Tool Clean to an SSPC-SP 3 with some sacrifice in performance vs. blasted surfaces. Other surface preparations such as Phosphating and Sanding are also acceptable as long as surface is clean, free of rust etc. Surface must be clean, dry and free of chemical contamination. Average peak to valley surface profile shall be 1.5 to 2.5 mils.

### APPLICATION CONDITIONS

Do not apply if material, substrate or ambient temperature is below 35°F (2°C) or above 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%.

Note: High humidity, which can lead to condensation (sweating), is to be avoided during application and initial curing. For best results, apply only when temperature during application and for four hours thereafter is expected to be above 55°F (13°C).

### ROLL APPLICATION

Manufacturer: Wooster Pro/Doo-Z ¼" - ½" nap

- Keep roll wet. Roll in one direction, rewet, then cross roll.



- When applying by rolling, a minimum of 2 coats will be required to achieve recommended DFT.

**BRUSH APPLICATION**

Manufacturer: Wooster China Bristle - 3"-4" brush

- When applying by brush, a minimum of three coats could be required.

**SPRAY APPLICATION**

Manufacturers listed below are a guide. Others may be used. Changes in tip size or pressure may be required to achieve proper application.

**Conventional Spray**

	<u>Binks</u>	<u>DeVilbiss</u>	<u>SATA</u>
Spray Gun:	2001	JGA	K3RP
Fluid Nozzle:	63CSS	FF (1.4)	1.0-1.7
Pot Pressure:			25
Atomizing Pressure			36
Air Cap:	63PR	765	

**HVLP Spray**

	<u>Binks</u>	<u>DeVilbiss</u>
Spray Gun:	Mach 1	GTi
Fluid Nozzle:	94 (1.4)	1.4
Air Cap:	93P	2000

**Airless Spray**

Pump: Graco Extreme 33:1  
 Airless Gun: Graco 207945  
 Fluid Hose: 3/8" x 50' max.  
 Tips: 415-519  
 Minimum pressure to avoid fingering: 2700 psi min.

**Application Notes**

- Apply by spray for best results. Corlar 2.1 PR-P may be brushed or rolled with some sacrifice in appearance.
- Corlar 2.1 PR-P is a very fast drying material. Under high temperature conditions, on large substrates it might be necessary to add T-1025 to help minimize dry spray and help melt in.

**Re-Coat**

Recoating of Corlar 2.1 PR-P should be done as soon as possible, a minimum of 45 minutes at 75°F, up to overnight. If you cannot recoat within 7 days, a light sanding with 220 – 320 grit sandpaper, must be done to assure proper topcoat adhesion. You should water wash with a minimum of 1500 psi to remove any surface contamination.

Recoat times are a minimum of 16 hours at 35°F. All efforts should be made to maintain surface and air temperatures above 35°F.

**CLEAN UP THINNERS**

T-1021



**DRY TIMES**

Cure Time At Recommended Thickness 2 mils DTF @ 50% RH

	<b>75°F</b>	<b>85°F</b>
Dust Free	30 minutes	30 minutes
To Touch	60 minutes	45 minutes
Recoat	45 minutes	30 minutes
Hard Dry	2 hours	1.5 hours
To Sand	5 hours	4 hours
Pack/Ship	4 hours	3 hours
Pot Life	5 hours	2.5 hours



Some slight variation in dry times might be seen across colors. Dry times can vary between 30-45 minutes @ 75°F.

Corlar 2.1 PR-P can be applied at temperatures as low as 35°F. Dry times due to the colder temperatures, are extended significantly. Recoat times are a minimum of 16 hours at 35°F. All efforts should be made to maintain surface and air temperatures above 35°F.



## PHYSICAL PROPERTIES

Maximum Service Temperature	250°F (121°C) Continuous Service
Volume Solids	53% ± 2%
Weight Solids	70% ± 2%
Theoretical Coverage Per Gallon	850 ft <sup>2</sup> (20.8 m <sup>2</sup> /L) @ 1 mil DFT 283 ft <sup>2</sup> (6.9 m <sup>2</sup> /L) @ 3 mils DFT 170 ft <sup>2</sup> (4.2 m <sup>2</sup> /L) @ 5 mils DFT

Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

Weight Per Gallon	11.95 lbs./gal ± 0.2%
Shipping Weight (approximate)	1 gallon container: 13 (base + activator) 5 gallon container: 64 (base + activator)

Suggested Film Thickness (FG-040, FG-041):	6 mils (150 µm) wet 3 mils (75 µm) dry Up to 15 (375 µm) wet Up to 7-8 (200 µm) dry
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NOTE: For use with FG-040 and FG-041, additional coats can be applied to get higher film builds. For use with FG-042 activator, higher films builds can be achieved with less per coat. Up to @ 7-8 mils dry (@15 wet), depending upon thinning.

Application by brush and roller may require additional coats to achieve recommended films thickness.

Flash Point:	Base: Below 20°F Activator: 100°F- 141°F
Gloss:	Flat
Package Size:	1 & 5 gallon containers Consult Axalta for current package availability.
Shelf Life:	12 months minimum

## STORAGE CONDITIONS

Store in a dry, well-ventilated area. Storage conditions should be between -30°F (-34°C) and 120°F (48°C).

Corlar 2.1 PR-P may settle. Mix each component thoroughly using a shear mixer at low speed before activating.

## VOC REGULATIONS

VOC (Theoretical, varies with color).

	VOC lbs/gal	VOC g/l max
All Colors Mixed with FG-040/FG-041/FG-042 no reduction	2.09	250
All Colors Mixed with FG-040/FG-041/FG-042 and reduced 5% with T-1025	2.03	244
All Colors Mixed with FG-040/FG-041/FG-042 and reduced 5% with T-1021	2.09	250



HAPS (Theoretical, varies with color)

	<u>lbs/gal max solids</u>
All Colors Mixed with FG-040/ FG-041/FG-042 No reduction	0.151
All Colors Mixed with FG-040/ FG-041/FG-042 and reduced 5% with T-1025	0.144
All Colors Mixed with FG-040/ FG-041/FG-042 and reduced 5% with T-1021	0.151

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.

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## ASTM INFORMATION

Physical properties are for a system of Corlar 2.1 PR-P/Imron® 2.1 HG™ applied over blasted steel. For other system results, contact Axalta Coating Systems.

Paint System:	Corlar 2.1 PR-P/Imron 2.1 HG	
Type   Color:	Epoxy/Urethane   Grey/White	
	<u>Low Build</u>	<u>High Build</u>
DFT	2/2	5/2
Salt Fog (ASTM B117)	1000 hours No rusting, no blisters	1000 Hours No rusting, no blisters
Relative Humidity (ASTM D2247)	1000 hours No Blisters	--
Adhesion (ASTM D4521 A2):	855 psi Cohesive failure within the primer	--
Cleveland Cond (ASTM D4585):	1000 hours No Blisters	--
Impact (ASTM D2794):	Passes 80 inch pounds (Forward)	--
Mandrel Bend Passes 1/8"	No failure	--
Pencil hardness:	2H (primer only)	--

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## 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.

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