



CORLAR® 2.1PR-P™

HIGH SOLIDS PRODUCTIVE EPOXY PRIMER

Corlar® 2.1 PR-P™ is a high solids, two component, VOC conforming (2.1 lbs./gal.) Low HAPS productive primer based on DuPont modified polyamide epoxy technology. The resulting highly durable, very fast dry primer, delivers 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
- a high build primer up to 5 mils DFT over abrasive blasted or power tool cleaned carbon steel substrates is needed
- 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.

NOT RECOMMENDED FOR:

- Immersion service
- Large areas with surface temperatures higher than 85° F (see additional comment #4)

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 DuPont Performance Coatings Representative for specific recommendations.

MAXIMUM SERVICE TEMPERATURE:

250°F (121°C) in continuous service

COLOR CHANGE/CHALKING:

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

PERFORMANCE PROPERTIES: WITH APPROPRIATE TOPCOAT

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

VOLATILE ORGANIC CONTENT (VOC) THEORETICAL: VARIES WITH COLOR

Corlar® 2.1 PR-P™ All Colors Mixed with FG-040™ no reduction	2.09 lbs/gal (251g/l) max
Corlar® 2.1 PR-P™ All Colors Mixed with FG-040™ and reduced 5% with DuPont T-1025™	2.03 lbs/gal (243 g/l) max
Corlar® 2.1 PR-P™ All Colors Mixed with FG-040™ and reduced 5% with DuPont T-1021™	2.1 lbs/gal (252 g/l) max

HAPS INFORMATION THEORETICAL: VARIES WITH COLOR

Corlar® 2.1PR-P™ All Colors Mixed with FG-040™ No reduction	0.151 lbs/gal solids max
Corlar® 2.1PR-P™ All Colors Mixed with FG-040™ and reduced 5% with DuPont™ T-1025™	0.144 lbs/gal solids max
Corlar® 2.1PR-P™ All Colors Mixed with FG-040™ and reduced 5% with DuPont™ T-1021™	0.151 lbs/gal solids max

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CORLAR® 2.1 PR-P™ High Solids Productive Epoxy Primer

COLOR

Corlar® 525-880™ Red Oxide	Corlar® 525-886™ Black
Corlar® 525-882™ Buff	Corlar® 525-971™ ANSI 70 Grey
Corlar® 525-885™ ANSI 61 Grey	Corlar® FG-040™ Activator

GLOSS:

Flat

CURE TIME – HOURS (50% R.H.*) (AVERAGE ACROSS ALL COLORS) @ 2MILS DFT

	75°F	85°F
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

*See Additional Comments 1 & 2 & 3

THEORETICAL COVERAGE PER GALLON:*

850 ft.² (20.8 m²/L) @ 1 mil DFT
 283 ft.² (6.9 m²/L) @ 3 mils DFT
 170 ft.² (4.2 m²/L) @ 5 mils DFT

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

SUGGESTED FILM BUILD:

6 mils (150 µm) wet
 3 mils (75 µm) dry

NOTE: Corlar® 2.1 PR-P can be applied in higher builds, @ 5 mils dft, for additional corrosion resistance.

10 mils (250 µm) wet
 5 mils (125 µm) dry

*Additional coats will be required when applying by brush or roll. See Comment #5.

VOLUME SOLIDS (MIXED):

53 ± 2%

WEIGHT SOLIDS (MIXED):

70 ± 2%

WEIGHT PER GALLON (LBS/GAL MIXED):

11.95 ± 0.2 lbs/gal

FLASH POINT (TAG CLOSED CUP):

Base: Below 20°F	Activator: 100°F- 141°F
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PACKAGING:

1 & 5 gallon containers – full filled (Please contact DuPont Customer Service for availability in 5 gallon containers.)

SHIPPING WEIGHT (LBS.) APPROXIMATE:

1 gallon container: 13 (base+ activator)
 5 gallon container: 64 (base + activator)



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SHELF LIFE & STORAGE CONDITIONS:

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

- 12 months minimum
- Corlar[®] 2.1 PR-P[™] may settle. Mix each component thoroughly using a shear mixer at low speed before activating.

SAFETY:

Consult the Material Safety Data Sheet for this product prior to use.



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APPLICATION INSTRUCTIONS

SURFACE PREPARATION:

SSPC-SP 10 Near White Metal Blast Cleaning is preferred for optimal performance. 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.

ACTIVATION: MIX 2 TO 1

Using a shear mixer at low speed so to create a small vortex, mix 525™ base. Using same procedure mix, FG-040™ activator. Slowly add 1 part FG-040™ Activator 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.

POT LIFE:

5 hours @ 75°F 2.5 hours @ 85°F

REDUCTION:

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

APPLICATION THINNERS:

Up to 5% DuPont™ T-1025™ Hot and Windy Up to 5% DuPont™ T-1025™ Brush and Roll
Up to 5% DuPont™ T-1021™ Normal conditions

CLEAN UP THINNERS:

DuPont™ T-1021™

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).

APPLICATION EQUIPMENT:

- Apply by spray for best results. Corlar® 2.1 PR-P™ may be brushed or rolled with some sacrifice in appearance.
- Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

BRUSH & ROLL:

- ¼" - ½" nap Wooster Pro/Doo-Z roller cover. Keep roll wet. Roll in one direction, rewet, then cross roll.
- 3"-4" Wooster China Bristle Brush



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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.

ADDITIONAL COMMENTS:

1. 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.

2. Some slight variation in dry times might be seen across colors. Dry times can vary between 30-45 minutes @ 75°F.
3. 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.
4. Corlar® 2.1 PR-P™ is a very fast drying material. Under high temperature conditions, on large substrates it might be necessary to add DuPont™ T-1025™ to help minimize dry spray and help melt in.
5. When applying by rolling, a minimum of 2 coats will be required to achieve recommended DFT. When applying by brush, a minimum of three coats could be required.



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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 DuPont Technical Service.

◆ Paint System	Corlar® 2.1 PR-P™/Imron® 2.1 HG™		
◆ Type/Color	Epoxy /Urethane	Color:	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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