



CORLAR[®] 2.1-PR[™]

HIGH SOLIDS EPOXY MASTIC PRIMER

(formerly Corlar[®] LF-71125P[™])

Corlar[®] 2.1-PR[™] is a high build epoxy mastic, two-package, VOC conforming product (2.1 lbs/gal)* based on DuPont amido amine modified polyamide epoxy technology. The resulting highly durable coating delivers outstanding corrosion and chemical resistance. *See Additional Comment #10.

SUGGESTED USES:

As a high performance primer or intermediate coat on carbon steel, galvanized steel, stainless steel, aluminum, concrete, concrete block and wood where:

- Rusted, hand or power-tool cleaned surfaces must be protected.
- Single coat applications up to 10 mils dry film thickness are required.
- Application will be made over damp surfaces and/or under conditions of high relative humidity
- Excellent resistance to chemical and/or marine environments is required.
- Outstanding abrasion resistance and edge protection are required.
- Application by brush and roller, in addition to spraying, may be necessary.
- Application must be made at temperatures as low as 35°F.
- No induction time and long pot life will improve productivity.

Corlar[®] 2.1-PR[™] may also be used as a high performance tank lining primer under Corlar[®] 2.1-ST[™] on carbon steel or concrete for immersion service in near neutral pH water, fresh water, or saltwater. Corlar[®] 2.1-PR[™] is not recommended for use with potable water. Contact your DuPont Performance Coatings Representative for specific immersion service recommendations and procedures.

RECOMMENDATIONS FOR IMMERSION SERVICE:

Corlar[®] 2.1-PR[™] when applied in multiple coats (at least 2) at 10-12 mil DFT is recommended for immersion service in near neutral, fresh or saltwater exposures. It is not recommended for use with potable water. It may be used for fire water towers, ballast tanks, clarifiers, wastewater treatment plants, offshore structures, pier pilings and supports and other areas where a high level of water resistance is required. See Additional Comment #5.

COMPATIBILITY WITH OTHER COATINGS:

Corlar[®] 2.1-PR[™] 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:

Up to 250°F Continuous
300°F Intermittent
100°F Immersion

NOT RECOMMENDED FOR:

- Immersion service in potable water, chemicals or hydrocarbons
- Extreme exposure without topcoat

All technical advice, recommendations and services are rendered by the Seller gratis. They are based on technical data which the Seller believes to be reliable, and are intended for use by persons having skill and know-how at their own discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by Buyer in whole or in part. Such recommendations, technical advice or services are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.

® is a registered trademark and ™ is a trademark of E. I. du Pont de Nemours and Company.
Copyright © 2007. E. I. du Pont de Nemours and Company. All rights reserved.



CORLAR® 2.1-PR™ High Solids Epoxy Mastic Primer (formerly Corlar® LF-71125P™)

COLOR CHANGE/CHALKING:

Corlar® 2.1-PR™ is primarily designed for corrosion protection. Corlar® 2.1-PR™ will chalk upon exposure to sunlight. If gloss, color retention and color stability are important, Corlar® 2.1-PR™ should be topcoated with Imron® 2.8-HG™ or Imron® 3.5-HG™, Tufcote 3.5-HGNI™ or other appropriate topcoat. In high temperature applications, some yellowing may occur. See Additional Comment #8.

PERFORMANCE PROPERTIES:

Abrasion	Excellent	Humidity	Excellent
Acids	Very Good	Salts	Excellent
Alkalis	Excellent	Solvents	Excellent
Ammonia	Excellent	Weather	Very Good (will chalk on exterior exposure)

VOLATILE ORGANIC CONTENT (VOC) THEORETICAL:

Condition	Thinner	%	VOC (lbs/gal)*	VOC (g/l)*	For 2.08 VOC Restricted Areas			
					Thinner	%	VOC (lbs/gal)*	VOC (g/l)
Airless Normal	Y32035™	2-5	2.3	276	T-1025	10	2.0	240
Conventional	Y32035™	7-10	2.5	300				
Max. Pot Life	Y32035™	15	2.7	324				
	RT001P™	15	2.8	336				
Hot & Windy	T-8054™	10-15	2.8	336				
Brush & Roll	RT001P™	10-15	2.8	336				
Mixed Unthinned			2.1	252				

* Reported values at higher level of reduction (theoretical/avg. across colors.)

COLOR:

Red Oxide

GLOSS:

Satin Finish

CURE TIME – HOURS @ 50% R.H. @ 5 MILS SUGGESTED DFT

	50°F (10°C)	70°F (21°C)	90°F (32°C)
To Touch	3-4	2-3	1-2
To Handle	8	4	2
To Recoat	5	3	2
Full Cure	14 Days	7 Days	4 Days

THEORETICAL COVERAGE PER GALLON:

1122 ft.² @ 1 mil DFT

224 ft.² @ 5 mils DFT

112 ft.² @ 10 mils DFT

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

SUGGESTED FILM BUILD (DFT):

Single Coat	5-8 mils in noncorrosive environment 10-12 mils in corrosive environment
Primer	3-8 mils
Mid Coat	4-6 mils
Immersion	10 - 12 mils



CORLAR® 2.1-PR™
High Solids Epoxy Mastic Primer
(formerly Corlar® LF-71125P™)

VOLUME SOLIDS (MIXED)(BEFORE REDUCTION):

70 ± 2%

WEIGHT SOLIDS (MIXED)(BEFORE REDUCTION):

83 ± 2%

WEIGHT PER GALLON (MIXED)(BEFORE REDUCTION):

12.3 ± 0.2 Lb. Avg. 5.64 Kg. Avg.

FLASH POINT (TAG CLOSED CUP):

Corlar® 2.1-PR™ Bases > 100°F
Corlar® VF-525™ Activator < 73°F

PACKAGING:

1 & 5 gallon containers

SHIPPING WEIGHT (LBS.) APPROXIMATE:

1 gallon container: 14 (base) / 11 (activator);
5 gallon container: 64 (base) / 55 (activator)

SHELF LIFE:

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

- Shelf Life 1 year minimum
- Corlar® 2.1-PR™ may settle. Agitate before each use and intermittently while sitting in storage.

SAFETY:

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



CORLAR® 2.1-PR™ High Solids Epoxy Mastic Primer (formerly Corlar® LF-71125P™)

APPLICATION INSTRUCTIONS

SURFACE PREPARATION:

For atmospheric service, an SSPC-SP 6 Commercial Blast Cleaning is preferred for optimal performance. If not possible or practical, then Hand Tool Clean to an SSPC-SP 2 or Power Tool Clean to an SSPC-SP 3. For immersion service, an SSPC-SP 5 White Metal Blast is required.

ACTIVATION:

Add 1 part Corlar® VF-525™ Activator to 1 part Corlar® 2.1-PR™ (LF-71125P™) base. Mix until thoroughly blended. You may begin painting immediately—there is no induction time.

POT LIFE:

@ 8 hours @ 70°F to 90°F when reduced 15% by volume with DuPont Y-32035™ or DuPont RT001P™ Thinner.

REDUCTION:

2-5% of DuPont Y-32035™ is required under normal conditions for airless spray. 7-10% of DuPont Y-32035™ is the suggested level of thinning for conventional spray. For maximum pot life, reduce 15% by volume with DuPont Y-32035™ or DuPont RT001P™. Use 10-15% DuPont T-8054™ Thinner in hot or windy conditions for spray application. Reduce 10-15% with RT001P™ Thinner when applying by roller or brush. If more reduction is required, consult your local DuPont Performance Coatings Representative.

For use in 2.08 VOC Restricted Areas: 10% T-1025™ must be added with constant mixing. Use without DuPont T-1025™ or with any other thinner will result in VOC levels higher than 2.08 lbs/gal.

See Additional Comments #2, #10.

APPLICATION THINNERS:

Normal Conditions — DuPont Y-32035™

Hot or Windy Conditions — DuPont T-8054™ (spray)

Brush or Roll — DuPont RT001P™

For 2.08 VOC — T-1025

CLEAN UP THINNERS:

DuPont T-8054™ or MEK

APPLICATION CONDITIONS:

Do not apply if material, substrate or ambient temperature is below 35°F (2°C) or above 100°F (38°C).

APPLICATION EQUIPMENT:

- Apply by brush, roll, or spray.
- 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:

- ½" - ¾" nap Wooster Pro/Doo-Z roller cover. Keep roll wet. Roll in one direction, rewet, then cross roll.
- 3"-4" Wooster China Bristle Brush

CONVENTIONAL SPRAY:

	<u>Binks</u>	<u>DeVilbiss</u>	<u>Sata</u>
Spray Gun:	2001	JGA	K3RP
Fluid Nozzle:	63BSS	FF (1.4)	1.1
Pot Pressure:			25
Atomizing Pressure			36
Air Cap:	63PB	765	

® is a registered trademark and ™ is a trademark of E. I. du Pont de Nemours and Company.
Copyright © 2007. E. I. du Pont de Nemours and Company. All rights reserved.



CORLAR® 2.1-PR™
High Solids Epoxy Mastic Primer
(formerly Corlar® LF-71125P™)

HVLP SPRAY:

	<u>Binks</u>	<u>DeVilbiss</u>
Spray Gun:	Mach 1	GTi
Fluid Nozzle:	94 (1.4)	1.4
Air Cap:	97P	2000

AIRLESS SPRAY:

Pump:	Graco Extreme 33:1
Airless Gun:	Graco 208663
Fluid Hose:	3/8" x 50' max.
Tips:	413-621
Minimum pressure to avoid fingering:	2400 psi min.

ADDITIONAL COMMENTS:

1. USDA approved.
2. At 15% reduction, reduced maximum film thickness will be obtained.
3. If using D fluid nozzle, minimize reduction to avoid runs and sags.
4. Recoating of Corlar® 2.1-PR™ should be done as soon as possible after dry to touch, a minimum of 3-5 hours at 70°F, up to overnight.

If you cannot recoat within 7 days up to 30 days, and you have not exposed the Corlar® 2.1-PR™ to strong exterior sunlight and elevated temperatures over 100°F, you should water wash with a minimum of 1500 psi to remove any surface contamination.

If you cannot recoat before 30 days and have exposed the Corlar® 2.1-PR™ surfaces to exterior sunlight and elevated temperatures over 100°F, you should either:

Option 1: Water wash the surface with 1500 psi and apply 1-2 mils DFT tack-mist coat Corlar® 2.1-PR™ over the existing Corlar® 2.1-PR™ painted surface and topcoat within 3-5 hours up to overnight, or

Option 2: Water wash the surface with 1500 psi and abrasively brush-blast to an SSPC-SP7 (sweep-blast) and topcoat within 3-5 hours up to overnight.

5. Do not roll for immersion applications. Spray apply only.
6. When applying over inorganic zinc primers, a mist coat is recommended for best results to minimize bubbling. Apply a mist coat and allow bubbles to break. Apply a full wet coat after mist coat.
7. Under certain high humidity and low temperature conditions, an amine blush is possible. This blush should be removed before proceeding with next coat by wiping surface with an alcohol-based solvent.
8. Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.
9. For intermittent service temperatures above 250°F, do not topcoat.
10. For use in 2.08 lbs/gal VOC Restricted Areas. Corlar® 2.1-PR™ must be reduced with T-1025 to remain compliant. Use without reduction with T-1025 could result in VOC conditions above 2.08 lbs/gal.



CORLAR® 2.1-PR™
High Solids Epoxy Mastic Primer
(formerly Corlar® LF-71125P™)

ASTM INFORMATION

Test results are for a one-coat system of Corlar® 2.1-PR™ (formerly Corlar® LF-71125P™). Properties for Corlar® 2.1-PR™ are enhanced when used in conjunction with topcoats such as Imron® polyurethane or applied at higher film builds. The results listed below are obtained when applying Corlar® 2.1-PR™ to 5.3 mils DFT.

◆ Paint System	Corlar® 2.1-PR™	
◆ Type/Color	Epoxy/Red Oxide	
◆ DFT	5.3	
◆ Salt Fog (ASTM B117)	1000 hours	no rusting, no blisters
	2000 hours	no rusting, very few #2 blisters at the scribe
	3000 hours	no rusting, very few #2 blisters at the scribe, no undercutting at the scribe
◆ Relative Humidity (ASTM D2247)	1000 hours	no rusting, no blisters
	2000 hours	no rusting, very few #2 blisters on the face of the panel
	3000 hours	no rusting, very few #2 blisters on the face of the panel
◆ Dry Heat (ASTM D2485)	250°F for 24 hours	no cracking, no blisters, very slight loss of adhesion, very slight discoloration
◆ Electrical Resistance (ASTM D2457):	5.5X10 ¹⁷	
◆ Adhesion (ASTM D4521 A2):	2038 psi	cohesive failure within coating
◆ Cleveland Cond (ASTM D4585):	1000 hours	no rusting, no blisters, no delamination
◆ UV Con (ASTM D4587)*	3000 hours	Gloss before exposure 29.5
		Gloss after exposure 1.2
◆ Impact (ASTM D2794):	1 inch pound	
◆ Mandrel Bend (ASTM D522):	% Elongation - 0%	
◆ Taber Abrasion (ASTM D4060):	weight loss in grams - 0.41	

*8 hr UV @ 50°C, 4 hr condensation @ 40°C, gloss readings @ 60°