

2.1 VOC Zinc Rich Primer

CPCPB732

ZNP-300/301

A high solids, two component, epoxy organic zinc rich primer for structural steel and other carbon steel surfaces which may be exposed to severe environments. This product contains > 80%zinc in dried film (by weight) and is reddish gray in color.

ZNP-300 may be topcoated directly with AUE-280, AUE-300 or AUE-370, however for maximum corrosion protection and performance an epoxy intermediate primer should be applied prior to topcoat application.

Features and Benefits:

- Excellent Adhesion
- Outstanding Corrosion Resistance
- High Zinc Metal Content in Dried Film

Associated Products:

• ZNP-301 Hardener

Exempt Solvent

• TFS321-50 Exempt blend

2.1 Maximum VOC Primer Recommendation					
Physical Constants: All values are theoretical, and are Ready-to-Spray. Actual values could vary slightly due to manufacturing variability.					
RTS Combinations:	ZNP-300 : ZNP- 301	ZNP-300 : ZNP-301 : TFS321-50			
Volume Ratio	4:1	4:1:0.5			
Applicable Use Category	Primer	Primer			
VOC Actual	236 (g/L)	216 (g/L)			
VOC Actual	1.97 (lbs/gal)	1.80 (lbs/gal)			
VOC Regulatory (less water less exempt)	249 (g/L)	249 (g/L)			
VOC Regulatory (less water less exempt)	2.08 (lbs/gal)	2.08 (lbs/gal)			
Density	2949 (g/L)	2773 (g/L)			
Density	24.6 (lbs/gal)	23.1 (lbs/gal)			
Volatiles wt.	10.4% 13.3%				
Water wt.	0.02%	0.03%			
Exempt wt.	2.3% 5.5%				
Water vol.	0.05% 0.07%				
Exempt vol.	5.1%	13.7%			
Percent solids (by weight)	89.6% 86.7%				
Percent solids (by volume)	67.7%	61.6%			
Photo-chemically reactive	Yes	Yes			
HAPs	> 0.1 lbs/gal	> 0.1 lbs/gal			

System recommendations that meets the advertised lowest VOC content guidelines. User must use components and mix ratios as indicated to meet VOC target.

2.8 Maximum VOC Primer Recommendation					
Physical Constants: All values are theoretical, and are Ready-to-Spray. Actual values could vary slightly due to manufacturing variability.					
*ZNP-300 : ZNP-301 : (Q50/Q70/Q80/Q160/TFS solvents)					
4:1:0.5					
Primer					
273 – 296 (g/L)					
2.28 – 2.47 (lbs/gal)					
291 – 310 (g/L)					
2.43 - 2.59 (lbs/gal)					
2751 – 2762 (g/L)					
23.0 - 23.1 (lbs/gal)					
12.7 – 13.0 %					
0.02%					
2.3 - 2.7%					
0.05%					
4.6 - 6.2%					
87.0 - 87.3%					
61.6%					
Yes					
> 0.3 lbs/gal					

*System recommendations that do not have to meet the lowest VOC recommendations advertised in this TDS, alternative mix components may be used as indicated. Review column VOC Regulatory (Less Water Less Exempts) values to determine expected VOC and compare to local applicable regulations.



ZNP-300/301

Directions for Use

Substrate Preparation:

The surface to be coated must be abraded or sandblasted and free of all contamination (including dust, dirt, oil, grease and oxidation). Blast to achieve a 1 to 2 mil (25 to 50 micron) profile as visually indicated by a Keane-Tator Surface Profile Comparator or measured with Testex Tape or a surface profile gauge. Variability can occur with substrates, preparation, application method or environment. We recommend that adhesion and system compatibility be checked prior to full application.*

An epoxy intermediate primer is recommended for maximum corrosion protection before applying a topcoat.



Substrate	
Hold Rolled Steel (HRS)	Excellent
Cold Rolled Steel (CRS)	Excellent

* Steel – Without pits or depressions: Blast SSPC-SP6. Rusted and pitted: Blast SSPC-SP10. Apply ZNP-300/301 as soon as possible to prevent blasted surface from rusting. Keep moisture, oil, grease or other organic matter off surface before coating. Spot blast to remove any contamination; solvent-wiping is not satisfactory. For mild exposures, power tool clean SSPC-SP3 or SP11 is acceptable. Repair of inorganic zinc surface – must be clean, dry, free of all contaminants and loose paint. Blast damaged areas to SSPC-SP10 or mechanically clean.

Mix Directions:		Mix Directions:	ZNP-300 is not recommended to be put on a shaker.	
			<i>Mixed product should always be used in a pot that has continuous agitation to prevent the zinc from settling.</i> Before blending components, mechanically mix ZNP-300 until uniform. Add the entire contents of ZNP-301 to ZNP-300 and mix thoroughly with a mechanical mixer. No digestion time is required. Before spraying, strain through a 30-60 mesh screen to prevent fluid tip from plugging. Maintain constant agitation during use to prevent settling. Note: Moisture contamination in components can result in poor properties of applied films or gelling of the material. Do not open until ready to use.	
	\Box	Blend Ratio:	ZNP-300 : ZNP-301	
			4 : 1	
		Thinning:	Before spraying, strain through a 30 to 60 mesh screen to prevent fluid tip plugging. Never thin beyond legal limits in VOC regulated areas. Can be thinned 10 % with non-exempt solvents in non-regulated areas and exempt solvents in regulated areas.	
		Pot Life @ 77°F (25°C):	6 hours	
		Unopened Shelf Life: (each component)	Shelf life when stored indoors at 40° to 100°F (4° to 38°C) Resin is 1 yr from manufacturing date Cure is 2 yrs from manufacturing date	
Application Equipment:		The following is a guide; suitable equipment from other manufacturers may be used. Changes in pressure, hose and tip size may be needed for proper spray characteristics.		
	7	Conventional/Compliant: Airless: Air-Assisted Airless: Brush or Roll:	Industrial equipment such as DEVILBISS® MBC or JGA, or BINKS® #18 or 62 spray gun. A moisture and oil trap in the main air supply, mechanical pot agitator , separate regulators for air and fluid pressure are recommended. Standard equipment with 45 to 1 pump ratio or larger with a 0.017-inch tip. Not recommended Not recommended	
Application:		Apply:	1 coat	
		Recommended Wet Film Build:	4.0 – 5.0 mils	
		Recommended Dry Film Build:	30-40 mils total	
		Square Foot Coverage (1 gal):	@ 1 mil = 1086 ft ² , @ 2 mils = 543 ft ² , @ 3 mils = 364 ft ²	
Dry Times:		Air Dry @ 77°F 50% RH To touch: To handle: To recoat with ZNP-300:	: 1 hour 3 hours Recoat or repair up to 1 month after which the zinc needs to be powerwashed first to remove zinc salts and contaminants.	
		To overcoat with primer:	Up to 48 hours with MBE or CRE Epoxy Primers after which the zinc must be lightly abraded and blown clean.	
		To topcoat with primer: Force Dry:	2 – 24 hours after which the zinc must be lightly abraded and blown clean. Do not force dry	

ZNP-300/301

Technical Data*

Performance Properties:

Hot Rolled Steel Sandblasted ZNP-300/301 CRE-321 AUE-370 In Service Dry Temperature Limit: 400°F (204°C) continuous or intermittent

Weather Resistance:

	ASTM Method	Results	
Salt Spray – 3500 hours	B117	Excellent	
Corrosion Creep	D1654	9A	
Scribe Blisters	D714	None	
Face Blisters	D714	None	
Humidity – 1000 hours	D2247		
5 Minute Recovery Adhesion	D3359	5A	
1 Hour Recovery Adhesion	D3359	5A	
24 Hour Recovery Adhesion	D3359	5A	

All tests results assume proper cure and preparation of test substrates.

* The application and performance property data above are believed to be reliable based on laboratory findings. It is for the buyer to satisfy itself on the suitability of the product for its particular use. Variation in environment, procedures of use, or extrapolation of data may cause unsatisfactory results.

Miscellaneous:

Not intended for residential use. Apply only when air, product and surface temperatures are above $50^{\circ}F$ ($10^{\circ}C$) and surface temperature is at least $5^{\circ}F$ ($3^{\circ}C$) above the dew point. Drying times listed may vary depending on temperature, humidity and air movement. Spray equipment must be handled with due care and in accordance with manufacturer's recommendation. High-pressure injection of coatings into the skin by airless equipment may cause serious injury.

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Safety:



These materials are designed for application only by professional, trained personnel, using proper equipment under controlled conditions and are not intended for sale to the general public. Safe application of paints and coatings requires knowledge of equipment, materials and individual training. Directions and procautionary information on both equipment and products should be carefully read and strictly observed for personal safety and property protection. Consideration must be given to eliminate conditions, which may generate hazardous atmospheres during spray application or subject operators or bystanders to injury or illness. Special precautions must be taken when utilizing spray equipment, particularly airless equipment. High-pressure injection of coatings into the skin by airless equipment may cause serious injury requiring immediate medical attention at a hospital. Treatment advice may also be obtained from Poison Centers. Air quality should be maintained with adequate ventilation; applicators can achieve additional protection by wearing respirators and other protective garments such as gloves and overalls. In all cases, wear protective eye equipment. During the application of all coatings materials, all flames, welding and smoking must be prohibited. Explosion proof equipment must be used when coating these materials in confined areas.

PRECAUTIONARY INFORMATION

Before using the products listed herein, carefully read each product label and follow directions for its use. Please read and observe all warnings and precautionary information on all product labels. Prevent all contact with skin and eyes and breathing of vapors and spray mist. Repeated inhalation of high vapor concentrations may cause a series of progressive effects including irritation of the respiratory system, permanent brain and nervous system damage and possible unconsciousness and death in poorly ventilated areas. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

KEEP OUT OF THE REACH OF CHILDREN



MEDICAL RESPONSE

Emergency Medical or Spill Control Information (412) 434-4515; CANADA (514) 645-1320 and in MEXICO 01-800-00-21-400. Have label information available.

Safety Data Sheets (SDS) for the PPG products mentioned in this publication are available through www.ppgcommercialcoatings.com (Safety, SDS Search) or your PPG Distributor.

For additional information regarding this product, see the SDS and LABEL information.



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