Commercial Performance Coatings

CPCPB411

Low VOC Epoxy Ester Primer

EEP Series

EEP-435	Light Gray Epoxy Ester Primer
EEP-901	Black Epoxy Ester Primer
EEP-951	White Epoxy Ester Primer

EEP Series are low VOC, chrome free epoxy ester primers. These 1K primers exhibit good filling and corrosion resistance properties when applied over properly prepared steel and aluminum substrates.

A wide variety of topcoats may be applied over EEP Series.

Features and benefits:

- 3.5 VOC Products (White color < 2.8 VOC)
- Factory packaged key primer colors
- One component primer

Associated Products:

- EEP- 435 3.5 VOC Light Gray Epoxy Ester Primer
- EEP- 901 3.5 VOC Black Epoxy Ester Primer
- EEP- 951 2.8 VOC White Epoxy Ester Primer

Physical Constants:

All values are theoretical, depend on color and are Ready-to-Spray. Actual values could vary slightly due to manufacturing variability.

	EEP-435	EEP-901	EEP-951
Percent solids (by weight)	72.2%	69.8%	73.3%
Percent solids (by volume)	52.0%	52.50%	56.6%
Volume Ratio	As is	As is	As is
Applicable Use Category	Primer Sealer	Primer Sealer	Primer Sealer
VOC Actual (g/L)	400	397	264
VOC Actual (lbs/gal)	3.34	3.31	2.20
VOC Regulatory (less water less exempt) (g/L)	400	398	302
VOC Regulatory (less water less exempt) (lbs/gal)	3.34	3.32	2.52
Density (g/L)	1445	1321	1559
Density (lbs/gal)	12.05	11.01	13.00
Volatiles wt. %	27.9	30.3	26.8
Water wt. %	0.2	0.2	0.2
Exempt wt. %	0.0	0.0	9.6
Water vol. %	0.3	0.2	0.2
Exempt vol. %	0.0	0.0	12.17
Flashpoint	70°F	84°F	70°F
HAPs	≤ 0.5 lbs/gal	≤ 0.6 lbs/gal	≤ 0.2 lbs/gal
Photo-chemically reactive	No	No	No

PPG

EEP Series

Directions for Use

Substrate Preparation:

The surface to be coated must be free of all contamination (including dust, dirt, oil, grease, and oxidation). A chemical treatment (or conversion coating) will improve adhesion and performance properties of the finished coat. Variability can occur with substrates, preparation, application method or environment. We recommend that adhesion and system compatibility be checked prior to full application.

Metal	Direct to Substrate
Cold Rolled Steel	Good
Hot Rolled Steel	Good
Galvaneal	Not Recommended
Galvanized	Not Recommended
Aluminum	Good
Plastic / Fiberglass	Surface should be free of all contamination. Because of the variability of plastic/fiberglass substrates, coating performance should be confirmed on the actual plastic/fiberglass substrate being used.

Note: For acceptable compatibility between this primer and CPC topcoats please see the CPC Primer/Topcoat compatibility chart (CPCTB01).

Mix Directions:

Mix Directions:	Mix thoroughly prior to and occasionally during spraying
Thinning:	Thinning of the EEP-435 and EEP-901 is not recommended in VOC regulated areas. In non-regulated areas, EEP-435 and EEP-901 may be reduced up to 10% with Q50 (Aromatic 100), Q160 (Aromatic 150), Q60 (MEK), or Q70 (MAK). Q30 (Acetone) may be used in regulated areas. If EEP-951 is reduced 10% with non-exempt solvents (MAK, MEK, Aromatic 100 or 150), the VOC will be greater than 2.80 lbs/gal, but will be less than 3.50 lbs/gal. To remain below 2.80 lbs/gal, Acetone may be used as a reducer.

Blend Ratio:	N/A
Pot Life @ 77°F (25°C):	N/A
Spray Viscosity Range:	#3 Zahn: EEP-435 17 – 25 seconds EEP-901 19 – 27 seconds EEP-951 14 – 23 seconds
Unopened Shelf Life: (each component)	2 years

Application Equipment:

Conventional (with or without pressure pot):	1.4 – 1.8 mm needle/nozzle, 40 – 50 psi at the gun
HVLP (with or without pressure pot):	1.3 – 1.6 mm needle/nozzle, 10 psi at cap or per manufacturer
Airless:	0.013 – 0.015 mm: 2200 – 2600 psi fluid pressure
Air-Assisted Airless:	0.013 – 0.015 mm: 900 – 1500 psi fluid pressure
Brush or Roll:	Not recommended
Electrostatic:	For improved electrostatic capability, Acetone (Q30) or MEK (Q60) may need to be added in small increments

Application:

Apply:	1 – 2 medium coats with a 10 – 15 minute flash between coats. Apply only when air, product and surface temperature are above 50°F (10°C) and when surface temperature is at least 5°F (3°C) above the dewpoint.
Recommended Wet Film Build:	1.4 – 2.1 mils
Recommended Dry Film Build:	1.0 – 1.5 mils
Square Foot Coverage @ 1mil no loss:	833 – 909 ft^2 depending on primer color

EEP Series

Directions for Use (continued)

Dry Times:

Air Dry @ 77°F 50% RH:	
To Touch:	30 – 40 minutes
To Handle:	1 – 2 hours*
To Recoat:	Before 1 hour or after 6 hours to 7 days**
To Topcoat:	After 1 hour to 7 days***
Force Dry @ 160°F:	20 minutes at 160°F after 10 minute flash at 77°F.

* Paint film is not fully cured for 7 days. Drying time listed may vary, depending upon film build, color selection, temperature, humidity and degree of air movement.

** If recoated between 1 hour and 6 hours, lifting of previous finish will occur. Before 1 hour, the coating is adequately solubilized to prevent lifting; where after 6 hours to 7 days, the coating has cured enough where solvent resistance is achieved.

*** After 7 days, the coating must be mechanically abraded and cleaned prior to topcoating.

Technical Data*

Performance Properties:

System:
BONDERITE® *1000*
EEP-435

Test	ASTM Method	Results
Pencil Hardness	D3363	F
Conical Mandrel	D522	Pass
Adhesion	D3359	4B – 5B
Gravelometer	D3170	8
In Service Temperature Limit		200°F

Chemical Resistance:

System:
Bonderite 1000
EEP-435

Chemical	ASTM Method	Result
10% NaOH (Sodium Hydroxide)	D1308	Slight ring
10% HCl (Hydrochloric acid)	D1308	Pass
10% H_2SO_4 (Sulphuric acid)	D1308	Pass
Gasoline	D1308	Mild ring
Water**	D1308	Pass

** Although resistant to intermittent exposure, this product is not recommended for immersion.

Weather Resistance:

System:
Bonderite 1000
EEP-435
AUE-300

	ASTM Method	Result
Salt Spray – 250 hours	B117	
Corrosion Creep	D1654	8A
Scribe Blisters	D714	8D, 6F
Face Blisters	D714	8D, 6F
Humidity – 100 hours	D2247	
5 Minute Recovery Adhesion	D3359	4B – 5B
1 Hour Recovery Adhesion	D3359	4B – 5B
24 Hour Recovery Adhesion	D3359	4B – 5B

All tests results assume proper cure and preparation of test substrates. Unless otherwise stated, all results were obtained spraying product direct to metal on *Bonderite* 1000.

* 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

This product should not be applied to zinc substrates.

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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 precautionary 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 MÉXICO 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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