## **DESCRIPTION**

Two component, ultra low VOC, water-based epoxy primer

### PRINCIPAL CHARACTERISTICS

- · General-purpose epoxy primer
- · Suitable for steel, concrete, galvanized steel, stainless steel, aluminum, and wood substrates
- Low VOC
- Low odor, soap and water clean up

## **COLOR AND GLOSS LEVEL**

- Light gray
- Matte

Note: Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Light colors are prone to ambering to some extent in interior or exterior exposures

## BASIC DATA AT 68°F (20°C)

Data for mixed product		
Number of components	Two	
Volume solids	46 ± 3%	
VOC (Supplied)	max. 20.0 g/l (approx. 0.2 lb/US gal)	
Recommended dry film thickness	2.0 - 4.0 mils (50 - 100 μm) depending on system	
Theoretical spreading rate	368 ft²/US gal for 2.0 mils (9.0 m²/l for 50 μm)	
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry	

## Notes:

- See ADDITIONAL DATA Overcoating intervals
- See ADDITIONAL DATA Curing time

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

• Coating performance is, in general, proportional to the degree of surface preparation

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#### Steel

- · Remove weld spatter, protrusions, and laminations in steel
- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-6 cleanliness or higher for optimum performance. Achieve a surface profile of 1.0 – 2.0 mils (25 – 50 um)
- For maintenance and repair in atmospheric service, the product can be applied over surfaces prepared in accordance with SSPC SP-2 or SSPC SP-3 (hand and power tool cleaning).

#### Concrete

- Allow concrete, mortar, plaster, etc. to cure for 30 days or more under normal drying conditions
- Remove all surface contaminants such as oil, grease, and embedded chemicals
- Abrade surface per ASTM D-4259 to remove all efflorescence and laitance, to expose subsurface voids, and to provide a surface roughness equivalent of 80 grit sandpaper or coarser
- Surface should be free from moisture in accordance with ASTM D4263. Refer to Information Sheet # 1496ACUS for further details regarding moisture measurements
- Slabs on grade should have a maximum moisture content of 3 lbs / 1,000 ft²/24 hours when measured by calcium chloride test

## Galvanizing

- Galvanizing that has had at least 12 months of exterior weathering may be coated after preparation in accordance with SSPC-SP1 to remove all contaminants and white rust
- Alternately, power tool clean to uniformly abrade the surface or lightly abrasive blast with a fine abrasive to produce a uniform and dense anchor profile of 1.0 – 2.0 mils (25 – 50 μm)
- New, or otherwise un-weathered galvanized surfaces or galvanized surfaces that have been passivated with a chromate
  treatment must be prepared in accordance with SSPC-SP 16. Coatings may not adhere to chromate sealed galvanizing if
  the chromates are not completely removed

## Non-ferrous metals and stainless steel

Abrasive blast in accordance with SSPC SP-16 guidelines

## **Wood**

- Surface must be clean dry and sound
- · Knots and pitch streaks must be scraped, sanded, and spot primed before full coat of primer is applied
- · All nail holes or small openings must be properly caulked

## Aged coatings and repairs

- Ensure the coating system is sound and well adhered
- · Do not apply over acrylic coatings or coatings that exhibit poor solvent resistance
- · A test patch is recommended to determine compatibility and adhesion
- · Sweep blast in accordance with SSPC-SP 7 or otherwise thoroughly abrade the existing coating
- Feather the edges of tightly adhered, in-tact coatings at the perimeter of repair areas
- Rusted or otherwise damaged areas should be power tool cleaned in accordance with SSPC-SP 3, feathering the edges
  of tightly adhered intact coating at the perimeter of repair areas

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#### Substrate temperature and application conditions

- Surface temperature during application should be between 50°F (10°C) and 100°F (38°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Ambient temperature during application and curing should be between 50°F (10°C) and 100°F (38°C)
- Relative humidity during application should be between 0% and 85%

#### Warning

Removal of old paint by sanding, scraping or other means may generate dust or fumes which contain lead. EXPOSURE TO LEAD DUST OR FUMES MAY CAUSE ADVERSE HEALTH EFFECTS, ESPECIALLY IN CHILDREN OR PREGNANT WOMEN. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted and approved (e.g., NIOSHapproved) respirator and proper containment and cleanup. For additional information, contact the USEPA/Lead Information Hotline at 1-800-424-LEAD or the regional Health Canada office

#### **INSTRUCTIONS FOR USE**

### Mixing ratio by volume: base to hardener (4:1)

- Pre-mix base component with a pneumatic mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 2-3 minutes until completely dispersed
- Immediately after mixing, the material may appear to increase in viscosity however after the prescribed induction time,
   the material should be briefly mixed and the viscosity will return to the initial state

Mixed product induction	ixed product induction time	
Mixed product temperature	Induction time	
Below 77°F (25°C)	30 minutes	
Above 77°F (25°C)	15 minutes	

## Pot life

5 hours at 70°F (21°C)

## **Application**

- Area should be sheltered from airborne particulates and pollutants
- · Avoid combustion gases or other sources of carbon dioxide that may promote amine blush and ambering of light colors
- · Ensure good ventilation during application and curing
- · Provide shelter to prevent wind from affecting spray patterns

# **Material temperature**

Material temperature during application should be between 50°F (10°C) and 80°F (27°C)

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## **Air spray**

· Use standard conventional equipment

## **Recommended thinner**

Tap water

## **Volume of thinner**

0 - 10%

## **Nozzle orifice**

Approx. 0.070 in (1.8 mm)

## **Nozzle pressure**

Atomizing pressure 55 - 70 p.s.i. (4.0 - 5.0 bar); Fluid pressure as required

### **Airless spray**

• 30:1 pump or larger

## **Recommended thinner**

Tap water

## Volume of thinner

0 - 10%

## **Nozzle orifice**

0.015 - 0.017 in (approx. 0.38 - 0.43 mm)

# Nozzle pressure

2000 - 2500 p.s.i. (approx. 138 - 173 bar; 13.8 - 17.2 MPa)

## Brush/roller

• Use a high quality polyester/nylon brush and/or a high quality 3/8" nap roller. In hot or dry conditions, layoff lightly rolling with 3/8" nap roller cover. Multiple coats may be required to achieve specified film thickness

## **Recommended thinner**

Tap water

## Volume of thinner

0 - 10%

# **Cleaning solvent**

Soap and water



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### **ADDITIONAL DATA**

Overcoating interval f	coating interval for DFT up to 2.0 mils (51 μm )			
Overcoating with	Interval	50°F (10°C)	70°F (21°C)	90°F (32°C)
itself	Minimum	16 hours	6 hours	4 hours
	Maximum	2 months	30 days	14 days

#### Notes:

- Dry times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum
  recoating time is highly dependent upon actual surface temperatures not simply air temperatures. Surface temperatures should be
  monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat
  window
- Surface must be clean and dry. Any contamination must be identified and removed. A detergent wash with PREP 88 or equivalent is required prior to application of topcoats after 30 days of exposure. However, particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface.

Curing time for DFT up to 2.0 mils (51 µm )		
Substrate temperature	Dry to touch	Dry to handle
50°F (10°C)	3 hours	16 hours
77°F (25°C)	1 hour	6 hours
90°F (32°C)	40 minutes	4 hours

## Notes:

- Adequate ventilation must be maintained during application and curing
- Dry times can vary based on environmental and substrate conditions

Pot life (at application viscosity)	
Mixed product temperature	Pot life
50°F (10°C)	10 hours
70°F (21°C)	5 hours
90°F (32°C)	3 hours

## **DISCLAIMER**

· For industrial or professional use only

## **SAFETY PRECAUTIONS**

• For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets

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### **WORLDWIDE AVAILABILITY**

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

### **REFERENCES**

CONVERSION TABLES	INFORMATION SHEET	1410
<ul> <li>EXPLANATION TO PRODUCT DATA SHEETS</li> </ul>	INFORMATION SHEET	1411
SAFETY INDICATIONS	INFORMATION SHEET	1430
<ul> <li>SAFETY IN CONFINED SPACES AND HEALTH SAFETY</li> </ul>	, EXPLOSION HAZARD – INFORMATION SHEET	1431
TOXIC HAZARD		

#### **WARRANTY**

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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## **AVAILABILITY**

## **Packaging**

1-gallon and 5-gallon kits

Product codes	Description
98E-46	Gray Primer Base
98E-99	Hardener

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