

## Technical Data Sheet

Unicoat Epoxy Zinc Phosphate Primer

UE2020

Two component Zinc Phosphate Epoxy Primer

### Description

A two-component polyamide-cured epoxy primer containing zinc phosphate pigment to protect steel from corrosion. Two pack base and curing agent ready to be mixed and used, giving excellent priming and adhesion to surface.

### Features:

- Excellent adhesion with steel surfaces.
- Excellent anti-corrosive property.
- Salt, alkali and acid solutions resistance properties.
- Very good solvents resistance property.

### Recommended Use:

Recommended for use on steel surface for exterior and interior applications as an anti-corrosive primer where anti-corrosive property is required.

### Physical Constants:

<b>Finish:</b>	Flat
<b>Colour:</b>	Grey, Yellow and other colors
<b>Volume Solid:</b>	50%, ASTM D2697
<b>Viscosity:</b>	98 KU (mixed paint) @ 25°C, ASTM D562
<b>Specific Gravity:</b>	1.42 ASTM D1475
<b>D.F.T</b>	Recommended D.F.T is 50 µm each coat
<b>Spreading Rate:</b>	Theoretically 10 m <sup>2</sup> / Ltr at 50 µm DFT
<b>Full Cured:</b>	7 days@ 25°C
<b>VOC:</b>	444 g/ ltr.

### Paint System

<b>Primers:</b>	None.
<b>Topcoats:</b>	Can be overcoated with all kinds of epoxy and PU. For other suitable topcoats, consult Unicoat TSD.

### APPLICATION GUIDE:

#### Application Data

<b>Mixing Ratio:</b>	By volume:	<u>Base</u>	:	<u>Hardener</u>
		4		1
<b>Pot-life:</b>	4 hours @ 25°C.			
<b>Induction Time:</b>	Nil.			

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## Surface Preparation:

- Pre-Cleaning:** Remove all visible surface deposits such as grease, oils and soils with suitable detergent. Remove salt and other contaminants by washing using high pressure fresh water. Where necessary, work to remedy or alleviate design or fabrication defects such as weld spatter, and where required smooth weld seams and sharp edges before abrasive blasting.
- Cleanliness:** Abrasive blasting using Sa 2½ (ISO 8501-1) or (NACE No. 2/SSPC-SP 10) method. For maintenance use UHPWJ (NACE No. 5/SSPC-SP 12).
- Surface Profile:** Check the surface roughness using comparators:  
**ISO Comparator:** Fine to Medium Grade (G) (28-85 µm), or  
**Keane-Tator Comparator:** 1.0 – 3.0 (G/S)

## Application Method and Thinning:

**THINNER:** Recommended Thinner is “Unicoat Thinner E850”.

Application Method	Airless Spray	Air Spray	Brush/Roller**
Thinning (by volume) *	(0-10) %	(20-30) %	(15-20) %
Nozzle Orifice	0.015-0.021"	1.5- 1.8 mm	N/A
Nozzle Pressure	15 MPa (2100psi)	29.0- 43.5 psi	N/A
Spray Angle	40-80°	50-80°	N/A

\* Depends on the weather condition at work place.

\*\* Recommended for stripe coat and small areas.

## Film Thickness and Spreading Rate:

	Minimum		Maximum		Recommended	
	(µm)	mil	(µm)	mil	(µm)	mil
Dry Film Thickness (DFT)	35	1.4	90	3.6	50	2
Wet Film Thickness (WFT)	70	2.8	180	7.2	100	4
	m <sup>2</sup> /l	ft <sup>2</sup> /US gal	m <sup>2</sup> /l	ft <sup>2</sup> /US gal	m <sup>2</sup> /l	ft <sup>2</sup> /US gal
Theoretical Spreading Rate	14.3	573	5.5	228	10.0	401

## Application Condition

Coating application should not take place unless the surface temperature is at least 5°C and at least 3°C above dew point during application.

Relative humidity should not exceed 85%.

In confined areas good ventilation is required during application and drying.

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## Drying Time and Recoating

**Drying Times:** Are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly.

<b>Temperature</b>	<b>25 °C/77°F</b>
<b>Relative Humidity</b>	50%
<b>Touch Dry</b>	1 hour
<b>Hard Dry</b>	4 hours
<b>Dry to recoat, minimum</b>	3 hours
<b>Dry to recoat, maximum*</b>	-----

**Note:** all records given in the table are typical at: Recommended film thickness, good ventilation and one coat system.

*\*The surface should be dry, clean and free from contaminations prior to application.*

## Handling and Safety:

- Cleanup:** Use "Unicoat Thinner E850" for tools cleaning and in case of spillage, absorb and dispose.
- Handling:** Handle with care. Stir very well before use.
- Health and Safety:** Please read and follow the precautionary notices displayed on the container, and all caution statements on the MSDS of this product. During application of paint, contact of liquid paint with eyes, skin, inhalation of paint mist and paint vapor should be strongly avoided. For spray application systems; applicator should wear protective clothing, gloves, also eye, skin and respiratory protection are always recommended. Keep away from reach of children.
- Ventilation:** When used in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. In addition, respirators must be used by all applicator.
- Caution:** This product contains flammable solvents, keep away from sparks and open flame. For information on LEL and TLV, please read the MSDS.

## Packing and Storage

- Packing:**
- |           |             |                 |
|-----------|-------------|-----------------|
|           | <u>Base</u> | <u>Hardener</u> |
| US Gallon | 2.88 Ltr    | 0.72 Ltr        |
| Drum      | 14.4 Ltr    | 3.6 Ltr         |
- Storage:** Store indoors. Storage conditions are to keep the container in sealed container in dry, cool and well-ventilated place.
- Storage Temperature:** (5-42) °C / (41-108) °F.
- Storage Humidity:** (0-95) % relative humidity.
- Shelf Life:** 1 year at 25 °C (77 °F).

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