

# PPG SIGMAZINC® 70 DOT

## DESCRIPTION

Three-component, zinc rich epoxy

## PRINCIPAL CHARACTERISTICS

- Complies with the compositional requirements of SSPC-Paint 20 Level 1 (≥ 85% zinc dust in dry film)
- Provides outstanding corrosion resistance
- Fast dry times for rapid topcoating
- Meets requirements of specification for structural joints according to ASTM A325 or A490 Bolts RCSC specification, Class B at 7 mils max DFT, 24 hours min cure, and 10 vol% max thinner

## COLOR AND GLOSS LEVEL

- Red
- Green
- Flat

## BASIC DATA AT 68°F (20°C)

Data for mixed product	
<b>Number of components</b>	Three
<b>Mass density</b>	3.4 kg/l (28.4 lb/US gal)
<b>Volume solids</b>	67 ± 2%
<b>VOC (Supplied)</b>	max. 2.3 lb/US gal (approx. 278 g/l)
<b>Temperature resistance (Continuous)</b>	To 400°F (204°C)
<b>Recommended dry film thickness</b>	2.0 - 7.0 mils (50 - 177 µm) depending on system
<b>Theoretical spreading rate</b>	537 ft <sup>2</sup> /US gal for 2.0 mils (13.2 m <sup>2</sup> /l for 50 µm)
<b>Shelf life</b>	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry Powder: at least 24 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Overcoating intervals - See ADDITIONAL DATA – Curing time
- Color will drift at elevated temperatures
- Continuous temperature resistance should be less than 5% of the time, and maximum 24 hours

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. All previous coats must dry and free of contaminants.



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## **Steel**

- Abrasive blast with an angular abrasive to an SSPC SP6 or higher. Achieve a surface profile of 1.0 – 3.0 mils (25 – 75 µm)
- Higher surface profiles up to 5.0 mils (125 µm) are acceptable, but the product must be applied to achieve a minimum film thickness of 2.5 mils (65 µm) above the peaks of the profile
- Apply this product as soon as possible to prevent blasted surface from rusting
- Keep moisture, oil, grease and other organic matter off surface before coating
- For touch-up and repair, power tool cleaning in accordance with ISO St3 (SSPC SP3) is acceptable for small areas and SSPC SP11 should be specified for large repair areas where blasting is not allowed

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## **Substrate temperature and application conditions**

- Surface temperature during application should be between 32°F (0°C) and 120°F (49°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Relative humidity during application and curing should not exceed 85%
- Ambient temperature during application and curing should be between 32°F (0°C) and 120°F (49°C)

### Notes:

- Extreme caution should be taken to ensure there is no ice on the surface in cold weather
- Product can be applied without accelerator at surface and air temperatures down to 32°F. Material temperature must be maintained at 40°F to 90°F at the time of application.
- If abrasive blast preparation is not possible, use SSPC SP11, power tool cleaning to bare metal (ISO St3)

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## **SYSTEM SPECIFICATION**

- Primers: Direct to metal, can be used to touch up inorganic zincs such as DIMETCOTE 9-SERIES
- Topcoats: AMERCOAT 370, AMERLOCK 600/DOT, SIGMAFAST 278, PPG DTM 202 Epoxy/DOT, Pitthane Ultra/DOT

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## **SECONDARY SURFACE PREPARATION**

- During storage and construction, contamination of the prefabrication primer should be limited

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## **INSTRUCTIONS FOR USE**

### **Mix as packaged**

- Pre-mix base component with a pneumatic air mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 1-2 minutes until completely dispersed. Add powder component slowly under agitation until fully mixed. Strain the mixture from one container to another through a 30 mesh filter/strainer to remove any undispersed lumps.
- Agitate continuously during application

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## **Application**

- Area should be sheltered from airborne particulates and pollutants
  - Ensure good ventilation during application and curing
  - Provide shelter to prevent wind from affecting spray patterns
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## **Material temperature**

- Material temperature during application should be between 40°F (4°C) and 90°F (32°C)
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## **Pot life**

15 hours at 70°F (21°C)

Note:

- See ADDITIONAL DATA – Pot life
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## **Air spray**

- A moisture and oil trap in the main line is essential. Product is sensitive to moisture contamination.
- Separate air and fluid pressure regulators and a moisture and oil trap in the main air supply line are recommended.
- Use standard conventional equipment

## **Recommended thinner**

THINNER 21-06 (AMERCOAT 65) (xylene)

## **Volume of thinner**

0 – 10%

## **Nozzle orifice**

Approx. 0.079 in (2.0 mm)

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## **Airless spray**

- 45:1 pump or larger

## **Recommended thinner**

THINNER 21-06 (AMERCOAT 65) (xylene)

## **Volume of thinner**

0 - 10%

## **Nozzle orifice**

0.017 – 0.019 in (approx. 0.43 – 0.48 mm)

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## **Brush/roller**

- Use a high-quality natural-bristle brush. Brush application is only recommended for small touch-up and/or repair areas. Roller application is not recommended.
- Ensure the brush is well-loaded to avoid air entrainment. Level air bubbles with a brush. Multiple coats may be necessary to achieve adequate film build.

## **Recommended thinner**

THINNER 21-06 (AMERCOAT 65) (xylene)

## **Volume of thinner**

0 – 6%

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## **Cleaning solvent**

- THINNER 90-58 (AMERCOAT 12)
  - THINNER 21-06 (AMERCOAT 65)
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## **Cleaning procedure**

- All application equipment must be cleaned immediately after use
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## ADDITIONAL DATA

Overcoating interval for DFT up to 75 µm (3.0 mils)					
Overcoating with...	Interval	32°F (0°C)	50°F (10°C)	70°F (21°C)	90°F (32°C)
various two-pack epoxy and polyurethane coatings	Minimum	5 hours	3 hours	1 hour	1 hour
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited
itself	Minimum	6 hours	4 hours	2 hours	1 hour
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Curing time for DFT up to 3.0 mils (75 µm)		
Substrate temperature	Dry to touch	Dry to handle
32°F (0°C)	1 hour	4 hours
50°F (10°C)	45 minutes	2.5 hours
70°F (21°C)	15 minutes	45 minutes
90°F (32°C)	15 minutes	30 minutes

### Product Qualifications

- SSPC Paint 20, Type II, Level 1
- Zinc dust meets ASTM D520 type 2 standards

### SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

### WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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.

### WARRANTY

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## AVAILABILITY OF PACKAGING

### Packaging

- 1-gallon kits
- 3.4-gallon kits

Depending on specific country of application the following versions are available:

Product	Color
SZ70-DP	Zinc Powder
SZ70-5D	Green
SZ70-7D	Red
SZ70/75-BD	Hardener for 1 GAL set
SZ70/75BD1	Hardener for 3.4 GAL set

