



New Guard Coatings Group

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SIGMAZINC™ 68 SP

DESCRIPTION

Two-component, high solids polyamine adduct cured zinc rich epoxy primer

PRINCIPAL CHARACTERISTICS

- Designed as a system primer in various paint systems for aggressive environments
- Excellent anticorrosive properties
- Quick-drying, can be overcoated after a short interval
- Suitable for use in offshore and onshore environments with ISO 12944-2 corrosivity categories of C5 and CX (offshore)
- Complies with the compositional requirements of ISO 12944-5
- Meets the requirements of Norsok M-501 rev. 6, System 1

COLOR AND GLOSS LEVEL

- Reddish gray
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	3.0 kg/l (25.0 lb/US gal)
Volume solids	70 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 106.0 g/kg max. 310.0 g/l (approx. 2.6 lb/US gal) EPA Method 24: 300.0 g/ltr (2.5 lb/USgal) China GB 30981-2020 (tested) 273.0 g/l (approx. 2.3 lb/gal)
Recommended dry film thickness	50 - 100 µm (2.0 - 4.0 mils) depending on system
Theoretical spreading rate	11.7 m ² /l for 60 µm (468 ft ² /US gal for 2.4 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 3 hours See overcoating tables
Full cure after	7 days
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 - Spreading rate and film thickness
- See ADDITIONAL DATA - Overcoating intervals
- See ADDITIONAL DATA - Curing time



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Immersion exposure

- Steel; blast cleaned to ISO-Sa2½ (SSPC SP-10), blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with approved zinc silicate shop primer; pretreated according to ISO-Sa1 (SPSS-SP7)

Atmospheric exposure conditions

- Steel; blast cleaned to ISO-Sa2½ or minimum SSPC SP-6, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with approved zinc silicate shop primer; pretreated according to ISO-Sa1 (SPSS-SP7) or power tool cleaned to ISO-St3 (SSPC SP3)

Substrate temperature

- Substrate temperature during application and curing should be above 5°C (41°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 90:10 (9:1)

- The temperature of the paint should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
- Adding too much thinner results in reduced sag resistance
- Thinner should be added after mixing the components

Induction time

None

Pot life

8 hours at 20°C (68°F)

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

1.5 – 2.5 mm (approx. 0.060 – 0.100 in)

Nozzle pressure

0.3 - 0.6 MPa (approx. 3 - 6 bar; 44 - 87 p.s.i.)



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Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.43 - 0.48 mm (0.017 - 0.019 in)

Nozzle pressure

20.0 MPa (approx. 200 bar; 2901 p.s.i.)

Brush/roller

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%

Cleaning solvent

THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
60 µm (2.4 mils)	11.7 m ² /l (468 ft ² /US gal)
100 µm (4.0 mils)	7.0 m ² /l (281 ft ² /US gal)

Overcoating interval for DFT up to 100 µm (4.0 mils)						
Overcoating with...	Interval	0°C (32°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
subsequent coating	Minimum	12 hours	6 hours	3 hours	2 hours	1 hour
	Maximum	3 months	3 months	3 months	3 months	3 months

Notes:

- Zinc rich primers can form zinc salts on the surface; preferably they should not be weathered for long periods before overcoating
- Before overcoating visible surface contamination must be removed by high-pressure water cleaning, sweep blasting or mechanical cleaning

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Curing time for DFT up to 100 µm (4.0 mils)

Substrate temperature	Dry to touch	Dry to handle	Full cure
0°C (32°F)	8 hours	10 hours	25 days
10°C (50°F)	6 hours	8 hours	20 days
15°C (59°F)	4 hours	5 hours	10 days
20°C (68°F)	3 hours	4 hours	7 days
30°C (86°F)	1.5 hours	2 hours	5 days

Notes:

- Adequate ventilation must be maintained during application and curing
- In case of application at air or surface temperature below 5°C (41°F), the temperature of the mixed paint is recommended to be higher than 10°C (50°F)

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 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

- EXPLANATION TO PRODUCT DATA SHEETS INFORMATION SHEET 1411

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