New Guard Coatings Group

A global reputation to protect.

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This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

SIGMAZINC™ 68 GP

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
- Suitable for use in offshore and onshore environments with ISO 12944-2 corrosivity categories of C5 and CX (offshore)
- Meets the requirements of Norsok M-501 rev. 6, System 1
- Quick-drying, can be overcoated after a short interval
- Complies with the compositional requirements of ISO 12944–5
- Complies with the compositional requirements of SSPC-Paint 20, Level 2
- The zinc dust used in this product complies with minimum ASTM D520 Type II

COLOR AND GLOSS LEVEL

- Gray, reddish gray
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	2.4 kg/l (20.0 lb/US gal)
Volume solids	68 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 130.0 g/kg max. 310.0 g/l (approx. 2.6 lb/US gal)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils) depending on system
Theoretical spreading rate	13.6 m^2/l for 50 µm (545 ft^2/US gal for 2.0 mils) See spreading rate tables
Dry to touch	20 minutes
Overcoating Interval	Minimum: 1.5 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

Note: See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½ (SSPC SP-10), blasting profile 40 – 70 µm (1.6 – 2.8 mils)

SIGMAZINC™ 68 GP

Substrate temperature

- Substrate temperature during application should be at least 0°C (32°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

6 hours at 20°C (68°F)

Air spray

Recommended thinner

THINNER 91-92 or THINNER 91-82 (AMERCOAT T-10)

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.)

Airless spray

Recommended thinner

THINNER 91-92 or THINNER 91-82 (AMERCOAT T-10)

Volume of thinner

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

Nozzle orifice

Approx. 0.43 – 0.53 mm (0.017 – 0.021 in)

Nozzle pressure

15.0 MPa (approx. 150 bar; 2176 p.s.i.)

SIGMAZINC™ 68 GP

Brush/roller

Recommended thinner
THINNER 91-92 or THINNER 91-82 (AMERCOAT T-10)

Volume of thinner
0 – 5%

Cleaning solvent
THNNER 90-53, THINNER 90-58 (AMERCOAT 12) OR THINNER 21-06 (AMERCOAT 65)

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
50 µm (2.0 mils)	13.6 m^2/l (545 ft^2/US gal)
60 µm (2.4 mils)	11.3 m^2/l (454 ft^2/US gal)
75 µm (3.0 mils)	9.1 m^2/l (364 ft^2/US gal)
100 µm (4.0 mils)	6.8 m^2/l (273 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	6 hours	3 hours	1.5 hours	1 hour	30 minutes
	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

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)	1.5 hours	6 hours	20 days
10°C (50°F)	1 hour	3 hours	15 days
15°C (59°F)	40 minutes	2 hours	10 days
20°C (68°F)	20 minutes	1.5 hours	7 days
30°C (86°F)	10 minutes	1 hour	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)

SIGMAZINC™ 68 GP

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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