PPG 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)
Temperature resistance (Continuous)	To 180°C (355°F)
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)
Dry to touch	20 minutes
Overcoating Interval	Minimum: 1.5 hours Maximum: 3 months
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

PPG SIGMAZINC™ 68 GP

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Atmospheric exposure conditions

- Steel; blast cleaned to ISO Sa2½ or minimum SSPC SP6, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with zinc silicate shop primer; pretreated according to ISO Sa1 (SSPC SP7) or power tool cleaned to ISO St3 (SSPC SP3)
- 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

Immersion exposure

- Steel; blast cleaned to ISO Sa2½ or minimum SSPC SP6, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with zinc silicate shop primer; pretreated according to ISO Sa1 (SSPC SP7)
- 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

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 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

Pot life

6 hours at 20°C (68°F)

PPG SIGMAZINC™ 68 GP

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.)

Brush/roller

Recommended thinner

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

Volume of thinner

0 – 5%

Cleaning solvent

- THINNER 90-53, THINNER 90-58 (AMERCOAT 12) or THINNER 21-06 (AMERCOAT 65)

PPG SIGMAZINC™ 68 GP

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:

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

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
20°C (68°F)	20 minutes	1.5 hours	7 days
30°C (86°F)	10 minutes	1 hour	5 days
40°C (104°F)	5 minutes	20 minutes	2 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 must be higher than 10°C (50°F)

PPG 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 & 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

- Information sheet | Explanation of product data sheets

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.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.