SIGMAZINC™ 109 G

DESCRIPTION

Two-component, high solids polyamide cured zinc rich epoxy primer

PRINCIPAL CHARACTERISTICS

- Designed as a system primer for various paint systems
- Excellent anticorrosive properties
- Quick-drying, can be overcoated after a short interval
- Can serve as a holding primer for various maintenance systems for a total repair
- Complies with HG/T3668-2009
- Complies with SSPC-Paint 20 level 2 and ISO 12944.5

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 (19.7 lb/US gal)
Volume solids	66 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 123.0 g/kg UK PG 6/23(92) Appendix 3: max. 290.0 g/l (approx. 2.4 lb/US gal)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils)
Theoretical spreading rate	8.8 m^2/l for 75 µm (353 ft^2/US gal for 3.0 mils)
Dry to touch	20 minutes
Overcoating Interval	Minimum: 2 hours Maximum: 3 months
Full cure after	7 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 12 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Atmospheric exposure conditions

- Steel; shot blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with approved zinc silicate shop primer; pretreated according to SPSS or power tool cleaned to SSPC SP3 (SPSS- Pt3)

Substrate temperature

- Substrate temperature during application should be at least 3°C (5°F) above dew point
- Substrate temperature during application and curing down to -5°C (23°F) is acceptable; provided the substrate is free from ice and dry

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 5.67:1

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

Pot life

4 hours at 20°C (68°F)

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 10%, depending on required thickness and application conditions

Nozzle orifice

1.8 – 2.2 mm (approx. 0.070 – 0.087 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 – 0.53 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

Volume of thinner

0 – 10%

Cleaning solvent

- THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
50 µm (2.0 mils)	13.2 m^2/l (529 ft^2/US gal)
75 µm (3.0 mils)	8.8 m^2/l (353 ft^2/US gal)
100 µm (4.0 mils)	6.6 m^2/l (265 ft^2/US gal)
150 µm (6.0 mils)	4.4 m^2/l (176 ft^2/US gal)

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Overcoating interval for DFT up to 150 µm (6.0 mils)								
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself and various two-pack epoxy coatings	Minimum	72 hours	36 hours	6 hours	4 hours	2 hours	1 hour	30 minutes
	Maximum	3 months	3 months	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
- In clean exterior conditions, a maximum interval of 3 months can be tolerated, but in industrial or marine conditions this interval should be reduced to the practical minimum
- Before overcoating any visible surface contamination must be removed by sandwashing, sweep blasting or mechanical cleaning

Curing time for DFT up to 50 µm (2.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
-5°C (23°F)	12 hours	3 days	28 days
0°C (32°F)	8 hours	1.5 days	25 days
5°C (41°F)	1.5 hours	6 hours	20 days
10°C (50°F)	1 hour	4 hours	15 days
15°C (59°F)	40 minutes	3 hours	10 days
20°C (68°F)	20 minutes	2 hours	7 days
30°C (86°F)	10 minutes	1.5 hours	5 days

Note:

- Adequate ventilation must be maintained during application and curing

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.

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REFERENCES

- Information sheet | Explanation of product data sheets

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