

New Guard Coatings Group

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SIGMAZINC™ 102

DESCRIPTION

Two-component, high solids polyamide cured zinc epoxy primer

PRINCIPAL CHARACTERISTICS

- Economical zinc epoxy primer for various paint systems
- Good corrosion prevention properties
- Quick-drying, can be overcoated after a short interval
- Can serve as a holding primer for various maintenance systems for a total repair
- The superimposed system must be unsaponifiable

COLOR AND GLOSS LEVEL

- Gray
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	2.1 kg/l (17.5 lb/US gal)
Volume solids	55 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 193.0 g/kg max. 410.0 g/l (approx. 3.4 lb/US gal)
Recommended dry film thickness	25 - 50 µm (1.0 - 2.0 mils) depending on system
Theoretical spreading rate	22.0 m ² /l for 25 µm (882 ft ² /US gal for 1.0 mils)
Dry to touch	15 minutes
Overcoating Interval	Minimum: 6 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

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

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



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Substrate temperature

- Substrate temperature during application and curing should be above 10°C (50°F)
 - Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
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Mixing ratio by volume: base to hardener 78:22

- 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 and slower cure
 - Thinner should be added after mixing the components
-

Induction time

None

Pot life

24 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 20%, 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 - 20%, depending on required thickness and application conditions

Nozzle orifice

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

Nozzle pressure

15.0 MPa (approx. 150 bar; 2176 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
25 µm (1.0 mils)	22.0 m ² /l (882 ft ² /US gal)
35 µm (1.4 mils)	15.7 m ² /l (630 ft ² /US gal)
50 µm (2.0 mils)	11.0 m ² /l (441 ft ² /US gal)



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Overcoating interval for DFT up to 50 µm (2.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	24 hours	8 hours	6 hours	4 hours	3 hours
	Maximum - interior	3 months	3 months	3 months	3 months	3 months
	Maximum - exterior	14 days	14 days	14 days	14 days	14 days

Notes:

- Zinc rich primers can form zinc salts on the surface; preferably they should not be weathered for long periods before overcoating
- An interval of several months can be allowed under clean interior exposure conditions
- In industrial or marine conditions or if a long recoat interval is required, it is recommended to apply a suitable sealer direct after the minimum recoating interval
- Before overcoating visible surface contamination must be removed by high-pressure water cleaning, 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
10°C (50°F)	40 minutes	4 hours	20 days
15°C (59°F)	30 minutes	2 hours	10 days
20°C (68°F)	15 minutes	2 hours	7 days
30°C (86°F)	10 minutes	1 hour	5 days

Notes:

- SIGMAZINC 102 can be applied at temperatures down to 5°C (41°F), but the curing rate will be very slow
- For such applications alternative zinc rich primers are recommended: SIGMAZINC 19, SIGMAZINC 158 and SIGMAZINC 160 for systems exposed to atmospheric conditions, SIGMAGUARD 750 for systems exposed to immersed conditions
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	Pot life
20°C (68°F)	24 hours
35°C (95°F)	6 hours

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- 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.



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REFERENCES

• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490

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