December 16, 2021 (Revision of December 8, 2021)

SIGMAZINC™ 105

DESCRIPTION

Two-component, zinc epoxy primer

PRINCIPAL CHARACTERISTICS

- Excellent anticorrosive properties
- Quick-drying, can be overcoated after 25 minutes
- Excellent application properties
- Cures at temperatures down to -5°C (23°F)

COLOR AND GLOSS LEVEL

- Gray
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	2.0 kg/l (16.7 lb/US gal)
Volume solids	65 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 208.0 g/kg max. 408.0 g/l (approx. 3.4 lb/US gal)
Recommended dry film thickness	50 - 80 µm (2.0 - 3.1 mils) depending on system
Theoretical spreading rate	13.0 m^2/l for 50 µm (521 ft^2/US gal for 2.0 mils)
Dry to touch	10 minutes
Overcoating Interval	Minimum: 25 minutes Maximum: 12 months
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 – 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 and application conditions

- Substrate temperature during application and curing down to -5°C (23°F) is acceptable; provided the substrate is free from ice and dry
- 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 80:20 (4:1)

- The temperature of the mixed base and hardener 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

Pot life

4 hours at 20°C (68°F)

Air spray

Recommended thinner
THINNER 21-06

Volume of thinner
15 - 20%, depending on required thickness and application conditions

Nozzle orifice
1.6 mm (approx. 0.063 in)

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

Airless spray

Recommended thinner
THINNER 21-06

Volume of thinner
5 - 15%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.38 – 0.53 mm (0.015 – 0.021 in)

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

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Brush/roller

Recommended thinner
THINNER 21-06

Volume of thinner
0 – 5%

Cleaning solvent
THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
50 µm (2.0 mils)	13.0 m^2/l (521 ft^2/US gal)
80 µm (3.1 mils)	8.1 m^2/l (336 ft^2/US gal)

Overcoating interval for DFT up to 50 µm (2.0 mils)						
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
various two-pack epoxy and polyurethane coatings	Minimum Maximum	1 hour 12 months	45 minutes 12 months	30 minutes 12 months	25 minutes 12 months	20 minutes 12 months

Overcoating interval for DFT up to 80 µm (3.1 mils)						
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
various two-pack epoxy and polyurethane coatings	Minimum Maximum	1.5 hours 12 months	1 hour 12 months	50 minutes 12 months	40 minutes 12 months	35 minutes 12 months

Notes:
- Surface should be dry and free from any contamination
- An interval of several months can be allowed under clean interior exposure conditions
- Zinc primers can form zinc salts on the surface; preferably they should not be weathered for long periods before overcoating
- Before overcoating any visible surface contamination must be removed by sandwashing, sweep blasting or mechanical cleaning

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Curing time for DFT up to 80 µm (3.1 mils)		
Substrate temperature	**Dry to touch**	**Dry to handle**
-5°C (23°F)	1 hour	1.5 hours
0°C (32°F)	40 minutes	1 hour
10°C (50°F)	25 minutes	50 minutes
20°C (68°F)	10 minutes	40 minutes
30°C (86°F)	less than 10 minutes	35 minutes

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.

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• 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
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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