December 1, 2022 (Revision of April 16, 2018)

SIGMACOVER™ 246

DESCRIPTION

Two-component, polyamide high-build epoxy primer/buildcoat, containing zinc phosphate

PRINCIPAL CHARACTERISTICS

- General-purpose epoxy coating in protective coating systems for the protection of steel structures in atmospheric exposure
- Good adhesion to steel
- Good flow and wetting properties
- Easy application by airless spray
- Cures at temperatures down to 5°C (41°F)
- Good performance on top of zinc silicate primers

COLOR AND GLOSS LEVEL

- Redbrown, cream, gray
- Eggshell

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.4 kg/l (11.7 lb/US gal)
Volume solids	64 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 241.0 g/kg UK PG 6/23(92) Appendix 3: max. 337.0 g/l (approx. 2.8 lb/US gal) China GB 30981-2020 (tested) 247.0 g/l (approx. 2.1 lb/gal)
Recommended dry film thickness	75 - 150 µm (3.0 - 6.0 mils)
Theoretical spreading rate	8.5 m^2/l for 75 µm (342 ft^2/US gal for 3.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 10 hours Maximum: 6 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

SIGMACOVER™ 246

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½ or power tool cleaned to min. ISO-St3
- Zinc silicate primer; (SIGMAZINC 158, SIGMAWELD 165 or SIGMAWELD 199) a mist coat is required

Substrate temperature

- Substrate temperature during application and curing should be above 5°C (41°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 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
- On top of zinc silicates (SIGMAZINC 158) a special spray technique is needed: application of two coats wet on wet with a flash off time of approx. 2 minutes in between

Pot life

8 hours at 20°C (68°F)

Note: See ADDITIONAL DATA

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

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

Nozzle orifice

Approx. 0.46 – 0.53 mm (0.018 – 0.021 in)

Nozzle pressure

14.0 - 25.0 MPa (approx. 140 - 250 bar; 2031 - 3626 p.s.i.)

SIGMACOVER™ 246

Brush/roller

- Application by brush may show brush marking, due to the thixatropic nature of the paint and is most suitable to small areas, tight angle areas or for stripe coating or touch-up
- Application by roller will leave roller marking and is suitable for minimum DFT requirements only
- A roller suitable for epoxy application must be used

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**
75 µm (3.0 mils)	8.5 m^2/l (342 ft^2/US gal)
100 µm (4.0 mils)	6.4 m^2/l (257 ft^2/US gal)
150 µm (6.0 mils)	4.3 m^2/l (171 ft^2/US gal)

Overcoating interval for DFT up to 150 µm (6.0 mils)					
Overcoating with...	**Interval**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself	Minimum	24 hours	10 hours	8 hours	6 hours
	Maximum	None	None	None	None
	Maximum exposed to direct sunshine	3 months	3 months	3 months	3 months

Notes:

- This product has an unlimited overcoating interval provided the surface is free from chalking and other contaminations
- In cases of exposure to direct sunlight or when the surface is contaminated it is recommended that the surface be cleaned and roughened to ensure good adhesion of the subsequent coating.
- The optimum intercoat adhesion is obtained when the subsequent coating is applied before the full cure time of the previous coating has elapsed

SIGMACOVER™ 246

Curing time for DFT up to 100 µm (4.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
5°C (41°F)	12 hours	24 hours	20 days
10°C (50°F)	7 hours	18 hours	14 days
15°C (59°F)	5 hours	12 hours	10 days
20°C (68°F)	3 hours	6 hours	7 days
30°C (86°F)	2 hours	4 hours	3 days
40°C (104°F)	1 hour	3 hours	48 hours

Note: adequate ventilation must be maintained during application and curing (please refer to sheet 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	16 hours
15°C (59°F)	12 hours
20°C (68°F)	8 hours
25°C (77°F)	6 hours
30°C (86°F)	4 hours
40°C (104°F)	2 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.

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

SIGMACOVER™ 246

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