PPG SIGMACOVER™ 809

DESCRIPTION

Two-component, high solids, polyamine adduct cured zinc phosphate epoxy primer/coating

PRINCIPAL CHARACTERISTICS

- High-performance modified passivation primer and buildcoat for protective coatings systems
- Long-lasting protection to steel structures requiring corrosion protection in extreme environmental conditions
- Suitable for use in offshore and onshore environments with ISO 12944-2 corrosivity categories of C5 and CX (offshore)
- Surface tolerant coating for lower grade of surface preparation for atmospheric exposure
- Suitable for immersion service without cathodic protection
- Easy application by brush/roller and (airless) spray
- ACQPA 29112-certified

COLOR AND GLOSS LEVEL

- Gray, redbrown
- Flat

Notes:

- Epoxy coatings will chalk and fade upon exposure to sunlight, elevated temperatures, or chemical exposure. Discoloration and normal chalking do not impact performance. Light colors will darken over time. Some batch-to-batch variation in color is to be expected. Color matches are approximate.
- The addition of a UV stable topcoat should be considered when using epoxy coatings in cosmetic areas

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.7 kg/l (14.2 lb/US gal)
Volume solids	80 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 159.0 g/kg UK PG 6/23(92) Appendix 3: max. 270.0 g/l (approx. 2.3 lb/US gal)
Recommended dry film thickness	75 - 250 µm (3.0 - 10.0 mils)
Theoretical spreading rate	10.7 m^2/l for 75 µm (428 ft^2/US gal for 3.0 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 3 hours Maximum: 28 days
Full cure after	5 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:

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- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Apply this product to the specified thickness as soon as possible after the surface is prepared

Substrate conditions

- Steel; blast cleaned to ISO Sa2½ or minimum SSPC SP6, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Alternative methods to abrasive blast cleaning include: ISO St2 (SSPC SP2), ISO St3 (SSPC SP3), SSPC SP15 or SSPC SP WJ-2 or WJ-3 with dry surface

Primed steel or previous coat

- Previous suitable coat must be dry and free from any contamination
- Surface of previous coat should be sufficiently roughened if necessary
- When applied to zinc silicate, a mist coat and full coat technique is required

Galvanized steel

- The surface must be properly prepared, dry, clean and free of any contamination
- The surface should be sufficiently roughened by sweep blasting to achieve a uniform matt appearance
- Sweep blast in accordance with the SSPC SP16 guidelines

Thermal Sprayed Metallization (TSM)

- Surface must be dry and free from any contamination
- The mist coat / full coat technique is required. See mist coat thinning recommendation in the Instructions For Use part below

Substrate temperature and application conditions

- 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 5:1

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

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Pot life

2 hours at 20°C (68°F)

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

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

Nozzle orifice

1.5 – 2.2 mm (approx. 0.060 – 0.087 in)

Nozzle pressure

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

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 10%, 30 - 50% when mist coat applied

Nozzle orifice

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

Nozzle pressure

15.0 - 20.0 MPa (approx. 150 - 200 bar; 2176 - 2901 p.s.i.)

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Brush/roller

Recommended thinner

THINNER 91-92

Volume of thinner

0 – 5%

Note:

- Application by brush may show brush marking, due to the thixotropic nature of the paint and is most suitable to small areas, tight angle areas or for stripe coating or touch-up

Cleaning solvent

- THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
75 µm (3.0 mils)	10.7 m^2/l (428 ft^2/US gal)
100 µm (4.0 mils)	8.0 m^2/l (321 ft^2/US gal)
150 µm (6.0 mils)	5.3 m^2/l (214 ft^2/US gal)
250 µm (10.0 mils)	3.2 m^2/l (128 ft^2/US gal)

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Overcoating interval for DFT up to 150 µm (6.0 mils)						
Overcoating with...	**Interval**	**0°C (32°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself and various two-pack epoxy coatings	Minimum Maximum Maximum NOT exposed to direct sunshine	21 hours 2 months 6 months	7 hours 1 month 6 months	3 hours 28 days 6 months	2 hours 21 days 5 months	1.5 hours 14 days 4 months
polyurethanes	Minimum Maximum Maximum NOT exposed to direct sunshine	30 hours 1 month 3 months	14 hours 21 days 3 months	10 hours 14 days 3 months	6 hours 7 days 2 months	4 hours 4 days 1.5 month

Note:

- The surface must be dry and free from all contaminations (oil, grease, chalking, etc...) which would require cleaning and/or abrading

Curing time for DFT up to 150 µm (6.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
0°C (32°F)	18 hours	24 hours	20 days
5°C (41°F)	12 hours	16 hours	14 days
10°C (50°F)	5 hours	8 hours	10 days
20°C (68°F)	3 hours	5 hours	5 days
30°C (86°F)	1 hour	4 hours	4 days
40°C (104°F)	45 minutes	3 hours	48 hours

Note:

- Adequate ventilation must be maintained during application and curing

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	3 hours
20°C (68°F)	2 hours
30°C (86°F)	1 hour
40°C (104°F)	40 minutes

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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

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