

PPG SIGMACOVER™ 280

DESCRIPTION

Two-component, aluminum pigmented polyamide cured universal primer

PRINCIPAL CHARACTERISTICS

- General-purpose epoxy primer in protective coating systems for steel and non-ferrous metals
- Excellent adhesion to steel, shop primer, galvanized steel and non-ferrous metals
- Suitable as sealer or tie-coat at DFT 25 - 40 µm (1.0 - 1.6 mils)
- Suitable for immersion service
- Cures at temperatures down to 5°C (41°F)
- Suitable for touching up of weld seams and damages of epoxy coatings during construction
- Suitable on wet blast cleaned substrates (damp or dry)
- Compatible with well-designed cathodic protection systems
- ACQPA 24142-certified

COLOR AND GLOSS LEVEL

- Gray, yellow/green and redbrown
- Low sheen

Note:

- 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	1.3 kg/l (11.0 lb/US gal)
Volume solids	57 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 327.0 g/kg UK PG 6/23(92) Appendix 3: max. 432.0 g/l (approx. 3.6 lb/US gal)
Recommended dry film thickness	50 - 100 µm (2.0 - 4.0 mils) depending on system
Theoretical spreading rate	11.4 m ² /l for 50 µm (457 ft ² /US gal for 2.0 mils) 5.7 m ² /l for 100 µm (229 ft ² /US gal for 4.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 2 hours
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:

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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

Atmospheric exposure conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils) or according to ISO-St3
- Shop primed steel; pretreated to SPSS-Pt3

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

Stainless steel

- The surface must be properly prepared, dry, clean and free of any contamination
- The surface should be sufficiently roughened by sweep blasting with inert non-metallic abrasives
- 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

Concrete / Masonry

- Dried for at least 28 days in good ventilation conditions
 - Moisture content should not exceed 4.5%
 - Concrete must be sound, dry, free from laitance and any contamination
 - Surface should be sufficiently roughened
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Immersion exposure

- Steel or steel with not approved zinc silicate shop primer; blast cleaned (dry or wet) to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils)
 - Steel with approved zinc silicate shop primer; weld seams and areas of damaged shop primer or breakdown should be blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils) or power tool cleaned to SPSS-Pt3
 - Existing pipelines may have to be cleaned first by scraper pigs and solvents
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Substrate temperature and application conditions

- 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
 - Relative humidity during application and curing should not exceed 85%
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INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 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
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Pot life

8 hours at 20°C (68°F)

Note:

- See ADDITIONAL DATA - Pot life
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Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

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

Nozzle orifice

1.5 - 2.0 mm (approx. 0.060 - 0.079 in)

Nozzle pressure

0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

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Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

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

Nozzle orifice

Approx. 0.46 mm (0.018 in)

Nozzle pressure

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

Note:

- Volume of thinner up to 30% for sealer or tie-coat application at DFT range 25 - 40 µm (1.0 - 1.6 mils)

Brush/roller

Recommended thinner

No extra thinner is necessary

Volume of thinner

Up to 5% THINNER 91-92 can be added if desired

Cleaning solvent

- THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
50 µm (2.0 mils)	11.4 m ² /l (457 ft ² /US gal)
75 µm (3.0 mils)	7.6 m ² /l (305 ft ² /US gal)
100 µm (4.0 mils)	5.7 m ² /l (229 ft ² /US gal)

Note:

- Maximum DFT when brushing: 50 µm (2.0 mils)
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Overcoating interval for DFT up to 100 µm (4.0 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 and various two-pack epoxy coatings	Minimum	12 hours	6 hours	2 hours	1 hour	30 minutes
	Maximum exposed to direct sunshine	3 months	3 months	3 months	2 months	2 months
	Maximum NOT exposed to direct sunshine	6 months	6 months	6 months	4 months	3 months
polyurethane topcoat	Minimum	36 hours	16 hours	6 hours	4 hours	3 hours
	Maximum exposed to direct sunshine	3 months	3 months	3 months	2 months	2 months
	Maximum NOT exposed to direct sunshine	6 months	6 months	6 months	4 months	3 months

Notes:

- Surface should be dry and free from any contamination
- Glossy finishes require a corresponding undercoat

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)	8 hours	13 hours	21 days
10°C (50°F)	4 hours	6 hours	14 days
20°C (68°F)	2 hours	2.5 hours	7 days
30°C (86°F)	1 hour	1.5 hours	5 days
40°C (104°F)	45 minutes	1 hour	4 days

Note:

- Adequate ventilation must be maintained during application and curing

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Pot life (at application viscosity)	
Mixed product temperature	Pot life
15°C (59°F)	10 hours
20°C (68°F)	8 hours
30°C (86°F)	5 hours
35°C (95°F)	4 hours

SAFETY PRECAUTIONS

- 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
- See Safety Data Sheet and product label for complete safety and precaution requirements

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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