January 11, 2021 (Revision of August 8, 2018)

SIGMACOVER™ 280 LT

DESCRIPTION

Universal epoxy anticorrosive primer, based upon pure epoxy technology

PRINCIPAL CHARACTERISTICS

- Universal epoxy primer suitable for Ballast Tanks, Decks, Topside, Superstructure, Hull and Cargo Oil Tanks
- General-purpose epoxy primer in protective coating systems for steel
- Good adhesion to steel and galvanized steel
- Good flow and wetting properties
- Good water and corrosion resistance
- Suitable for touching up of weld seams and damages of epoxy coatings during construction
- Recoatable with most two-component epoxy and polyurethane coatings
- Compatible with well-designed, controlled cathodic protection systems
- Cures at temperatures down to -10°C (14°F)

COLOR AND GLOSS LEVEL

- Yellow/green
- Eggshell

BASIC DATA AT 10°C (50°F)

Data for mixed product	
Number of components	Two
Mass density	1.4 kg/l (11.7 lb/US gal)
Volume solids	57 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 332.0 g/kg UK PG 6/23(92) Appendix 3: max. 438.0 g/l (approx. 3.7 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	3 hours
Overcoating Interval	Minimum: 8 hours See overcoating tables
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

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

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

Immersion exposure

- Steel or steel with not approved zinc silicate shop primer; blast cleaned 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

IMO-MSC.215(82) requirements for water ballast tanks

- Steel; ISO 8501-3 2006 grade P2, with all edges treated to a rounded radius of minimum 2 mm (0.079 in) or subject to three pass grinding
- Steel or steel with not appoved zinc silicate shop primer: blast cleaned 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 shop primer damage or break down should be blast cleaned to Iso-Sa 2½ blasting profile 30 – 75 µm (1.2 – 3.0 mils): [1] For shop primer with IMO type approval; no additional requirements; [2] For shop primer without IMO type approval; blast cleaned to ISO-Sa2 removing at least 70% of intact shop primer, blasting profile 30 – 75 µm (1.2 – 3.0 mils)
- Dust quantity rating "1 for dust size class "3", "4" or "5", lower dust size classes to be removed if visible on the surface to be coated without magnification (ISO 8502-3:1992)

Atmospheric exposure conditions

- Steel; pretreated preferably to ISO-Sa2½, , blasting profile 40 – 70 µm (1.6 – 2.8 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 SP-16 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 SP-16 guidelines

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 to provide a key

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Substrate temperature and application conditions

- Substrate temperature during application and curing should be between -10°C (14°F) and 15°C (59°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Ambient temperature during application at -10°C (14°F) is acceptable; however curing to hardness takes longer and complete cure will be reached when the temperature increases
- Relative humidity during application should not exceed 85%

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- The temperature of the mixed base and hardener should be above 10°C (50°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

8 hours at 10°C (50°F)

Note: See ADDITIONAL DATA – Pot life

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.)

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

Overcoating interval for DFT up to 75 µm (3.0 mils)							
Overcoating with...	**Interval**	**-10°C (14°F)**	**-5°C (23°F)**	**0°C (32°F)**	**5°C (41°F)**	**10°C (50°F)**	**15°C (59°F)**
other types of paint like most chlorinated rubber-, vinyl-, and alkyd coatings	Minimum	24 hours	16 hours	12 hours	8 hours	4 hours	3 hours
	Maximum	10 days	10 days	7 days	4 days	4 days	4 days

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

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Overcoating interval for DFT up to 75 µm (3.0 mils)							
Overcoating with...	**Interval**	**-10°C (14°F)**	**-5°C (23°F)**	**0°C (32°F)**	**5°C (41°F)**	**10°C (50°F)**	**15°C (59°F)**
various two-pack epoxy and polyurethane coatings	Minimum	48 hours	24 hours	16 hours	12 hours	8 hours	6 hours
	Maximum exposed to direct sunshine	2 months	2 months	2 months	1 month	1 month	1 month
	Maximum NOT exposed to direct sunshine	3 months	3 months	3 months	2 months	2 months	1 month

Note: surface should be dry and free from any contamination

Curing time for DFT up to 75 µm (3.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
-10°C (14°F)	20 hours	32 hours	21 days
-5°C (23°F)	10 hours	16 hours	14 days
5°C (41°F)	5 hours	6 hours	9 days
10°C (50°F)	3 hours	4 hours	7 days
15°C (59°F)	2 hours	3 hours	5 days

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**
5°C (41°F)	10 hours
10°C (50°F)	8 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

• 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
• PPG PROTECTIVE & MARINE COATINGS' BALLAST TANK WORKING PROCEDURES NEW-BUILDING		

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Depending on specific country of application the following versions are available:

Article code	Color	Reference
181451	yellow/green	4009002200 (144497 base, 181453 hardener)