SIGMACOVER™ 380

DESCRIPTION

Universal epoxy anticorrosive primer, based upon pure epoxy technology

PRINCIPAL CHARACTERISTICS

- Universal epoxy primer system suitable for Ballast Tanks, Decks, Topside, Superstructure and Hull
- Good abrasion resistance for dedicated areas of application
- Suitable for immersion service (ballast tanks, outside shell)
- Good anticorrosive properties and water resistance
- Good flexibility
- Resistant to well designed cathodic protection
- Good drying- and curing property
- Suitable for both newbuilding and maintenance applications

COLOR AND GLOSS LEVEL

- Gray, green
- 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	80 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 161.0 g/kg max. 226.0 g/l (approx. 1.9 lb/US gal)
Recommended dry film thickness	125 - 200 µm (5.0 - 8.0 mils) depending on system
Theoretical spreading rate	6.4 m^2/l for 125 µm (257 ft^2/US gal for 5.0 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 8 hours Maximum: 28 days
Full cure after	7 days
Shelf life	Base: at least 12 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

Immersion exposure

- 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 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
- Previous coat must be dry and free from any contamination

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 (0.0789 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)
- Damages up to 2% of the total area of the tank may be treated to ISO-St3. Damages over 2% of the total area of the tank or contiguous damages over 25 m^2 (269 ft^2) have to be blast cleaned to ISO-Sa2½.
- 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)
- Previous coat must be dry and free from any contamination

Atmospheric exposure conditions

- Steel; pretreated preferably 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 must be free from grease, salts and any contamination
- Galvanized steel must be sweep blasted or otherwise roughened
- Previous coat must be dry and free from any contamination

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%

SYSTEM SPECIFICATION

- SYSTEMS FOR BALLAST TANKS – SYSTEM SHEET 3106 (spec. 6)

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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

Induction time

None

Pot life

4 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

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

20.0 - 25.0 MPa (approx. 200 - 250 bar; 2901 - 3626 p.s.i.)

Brush/roller

- Brush: for stripe coating and spot repair only

Cleaning solvent

THINNER 90-53

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ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
125 µm (5.0 mils)	6.4 m^2/l (257 ft^2/US gal)
160 µm (6.3 mils)	5.0 m^2/l (204 ft^2/US gal)
200 µm (8.0 mils)	4.0 m^2/l (160 ft^2/US gal)

Note: Maximum DFT in critical areas, applied in two equal coats: 1500 µm (60.0 mils)

Overcoating interval for DFT up to 160 µm (6.3 mils)					
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself	Minimum	48 hours	24 hours	8 hours	4 hours
	Maximum	28 days	28 days	28 days	28 days

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 160 µm (6.4 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
5°C (41°F)	24 hours	48 hours	20 days
10°C (50°F)	12 hours	24 hours	14 days
20°C (68°F)	3 hours	8 hours	7 days
30°C (86°F)	2 hours	6 hours	4 days
40°C (104°F)	1 hour	4 hours	3 days

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
15°C (59°F)	6 hours
20°C (68°F)	4 hours
30°C (86°F)	2 hours
40°C (104°F)	1 hour

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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
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• PPG PROTECTIVE & MARINE COATINGS' BALLAST TANK WORKING PROCEDURES NEW-BUILDING		

WARRANTY

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Article code	Color	Reference
250041	green	4100002200 (250040 base, 250044 hardener)
250043	grey	5100002200 (250042 base, 250044 hardener)

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