

SIGMACOVER™ 580

DESCRIPTION

Two-component, epoxy anticorrosive/antifouling tiecoat, for one coat application during underwater hull repairs at dry docking

PRINCIPAL CHARACTERISTICS

- Epoxy underwater anticorrosive primer/coating
- Excellent tie coat providing adhesion for antifoulings
- One-coat application reduces application time
- Direct antifouling application
- Simplifies dry docking procedures and reduces down time

COLOR AND GLOSS LEVEL

- Gray, dark 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	57 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 280.0 g/kg max. 390.0 g/l (approx. 3.3 lb/US gal)
Recommended dry film thickness	250 µm (10.0 mils)
Theoretical spreading rate	2.3 m ² /l for 250 µm (91 ft ² /US gal for 10.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 8 hours Maximum: 5 days
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™ 580

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO Sa2 or ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils), for excellent corrosion protection
- Steel; blast cleaned to ISO-Sa2, blasting profile 40 – 70 µm (1.6 – 2.8 mils) or power tool cleaned to ISO-St3 for good corrosion protection

Substrate temperature and application conditions

- Substrate temperature during application and curing should be above 0°C (32°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 86:14

- 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
- Preferable application temperature is above 5°C (41°F) to ensure good curing; application down to 0°C (32°F) is possible

Induction time

Mixed product induction time	
Mixed product temperature	Induction time
Below 10°C (50°F)	15 minutes

Pot life

4 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%, 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.)



SIGMACOVER™ 580

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.53 - 0.58 mm (0.021 - 0.023 in)

Nozzle pressure

12.0 - 15.0 MPa (approx. 120 - 150 bar; 1741 - 2176 p.s.i.)

Brush/roller

Recommended thinner

THINNER 91-92

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
250 µm (10.0 mils)	2.3 m ² /l (91 ft ² /US gal)
300 µm (12.0 mils)	1.9 m ² /l (76 ft ² /US gal)

Overcoating interval for DFT up to 250 µm (10.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
PPG antifoulings	Minimum	24 hours	12 hours	8 hours	6 hours	4 hours
	Maximum	5 days	4 days	3 days	3 days	48 hours

Note: Surface should be dry and free from any contamination

SIGMACOVER™ 580

Curing time for DFT up to 250 µm (10.0 mils)

Substrate temperature	Service- water immersion	Full cure
10°C (50°F)	48 hours	15 days
20°C (68°F)	24 hours	7 days
30°C (86°F)	18 hours	5 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
10°C (50°F)	6 hours
20°C (68°F)	4 hours
30°C (86°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

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SIGMACOVER™ 580

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