SIGMACOVER™ 555

DESCRIPTION

Two-component, polyamide-cured epoxy anticorrosive tiecoat

PRINCIPAL CHARACTERISTICS

- Final coat in epoxy underwater anticorrosive systems
- Excellent water resistance
- Epoxy anticorrosive with excellent adhesion for antifoulings
- Good abrasion- and impact resistance

COLOR AND GLOSS LEVEL

- Black, 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	56 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 276.0 g/kg max. 387.0 g/l (approx. 3.2 lb/US gal)
Recommended dry film thickness	75 - 150 µm (3.0 - 6.0 mils) depending on system
Theoretical spreading rate	7.5 m^2/l for 75 µm (299 ft^2/US gal for 3.0 mils) 3.7 m^2/l for 150 µm (150 ft^2/US gal for 6.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 8 hours Maximum: 5 days
Full cure after	7 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 12 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

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Previous coat must be dry and free from any contamination

SIGMACOVER™ 555

Substrate temperature and application conditions

- Substrate temperature during application and curing should be above -5°C (23°F)
- Substrate temperature during application and curing down to -5°C (23°F) is acceptable; provided the substrate is free from ice and dry
- 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

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™ 555

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**
75 µm (3.0 mils)	7.5 m^2/l (299 ft^2/US gal)
100 µm (4.0 mils)	5.6 m^2/l (225 ft^2/US gal)
150 µm (6.0 mils)	3.7 m^2/l (150 ft^2/US gal)

Note: Maximum DFT when brushing: 75 µm (3.0 mils)

Overcoating interval for DFT up to 150 µm (6.0 mils)								
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**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	24 hours	24 hours	12 hours	8 hours	6 hours	4 hours
	Maximum	10 days	5 days	5 days	4 days	3 days	3 days	48 hours

Note: Surface should be dry and free from any contamination

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Curing time for DFT up to 150 µm (6.0 mils)		
Substrate temperature	**Service- water immersion**	**Full cure**
-5°C (23°F)	5 days	N/A
5°C (41°F)	4 days	21 days
10°C (50°F)	48 hours	15 days
20°C (68°F)	24 hours	7 days
30°C (86°F)	18 hours	5 days

Notes:

- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- In exceptional cases SIGMACOVER 555 may be applied at lower substrate temperatures (down to -15°C (5°F)) provided that the surface is free from ice and other contamination. In such cases special care must be taken to avoid thick film application as this may lead to checking/crazing or solvent entrapment. It should be clear that application at lower temperatures will require additional thinning to obtain application viscosity, however this will affect the sag resistance of the applied coating and can induce solvent retention.Optimal curing and designed product properties will only be achieved when minimum required substrate temperature is reached

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
5°C (41°F)	8 hours
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.

SIGMACOVER™ 555

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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