New Guard Coatings Group

A global reputation to protect.

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SIGMACOVER™ 350

DESCRIPTION

Two-component, high-build polyamide cured epoxy primer/coating based upon pure epoxy technology

PRINCIPAL CHARACTERISTICS

- Surface tolerant primer/coating for wide use in Marine and Protective Coatings
- Marine use: suitable on topsides, decks, superstructures and cargo holds
- Excellent corrosion resistance
- Compatible with various aged coatings
- Suitable as floor coating for pedestrian traffic with dry to walk on time of 6 hours at 20°C (68°F)
- Good impact and abrasion resistance
- Smooth film, easy to clean
- Resistant to splash and spillage of a wide range of chemicals

COLOR AND GLOSS LEVEL

- Standard and custom colors, including aluminum
- For Cargo holds gray (5177) and redbrown (6179) only
- Semi-gloss

Notes:

- Epoxy coatings will chalk and fade upon exposure to sunlight, elevated temperatures, or chemical exposure. Discoloration and normal chalking do not impact performance. Light colors will darken over time. Some batch-to-batch variation in color is to be expected. Color matches are approximate.
- 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	1.4 kg/l (11.7 lb/US gal)
Volume solids	72 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 263.0 g/kg max. 361.0 g/l (approx. 3.0 lb/US gal) China GB 30981-2020 (tested) 299.0 g/l (approx. 2.5 lb/gal)
Recommended dry film thickness	100 - 150 µm (4.0 - 6.0 mils) for airless spray
Theoretical spreading rate	5.8 m^2/l for 125 µm (231 ft^2/US gal for 5.0 mils) 4.8 m^2/l for 150 µm (192 ft^2/US gal for 6.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 6 hours See overcoating tables
Full cure after	7 days

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Data for mixed product	
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

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½ for excellent corrosion protection, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel; blast cleaned to ISO-Sa2, blasting profile 40 – 70 µm (1.6 – 2.8 mils) or power tool cleaned to minimum ISO-St2 for good corrosion protection
- Coated steel; hydrojetted to VIS WJ2/3L
- Surface must be dry and free from any contamination
- Existing sound epoxy systems and most sound alkyd coating system; sufficiently roughened

Substrate conditions of concrete for thinned version

- 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
- Rough surface; eventually abraded by power tool or diamond abrading tool

Coated concrete

- Existing sound coating systems; sufficiently roughened, dry and cleaned
- To ensure compatibility, rub the existing coating with a cloth with Xylene or MEK for 10 seconds, and remove existing coatings if dissolving occurs
- Rough surface; eventually abraded by power tool or diamond abrading tool

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

SYSTEM SPECIFICATION

- SIGMACOVER 350: 2 x 125 µm (5.0 mils) DFT

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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
- Thinner should be added after mixing the components

Induction time

None

Pot life

3 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

5 - 10%, depending on required thickness and application conditions

Nozzle orifice

1.8 – 2.0 mm (approx. 0.070 – 0.079 in)

Nozzle pressure

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

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

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

Nozzle orifice

Approx. 0.48 – 0.53 mm (0.019 – 0.021 in)

Nozzle pressure

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

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Brush/roller

Recommended thinner
THINNER 91-92

Volume of thinner
0 – 5%

Note: 10 - 15% when applied as a primer direct to concrete

Cleaning solvent
THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
100 µm (4.0 mils)	7.2 m^2/l (289 ft^2/US gal)
125 µm (5.0 mils)	5.8 m^2/l (231 ft^2/US gal)
150 µm (6.0 mils)	4.8 m^2/l (192 ft^2/US gal)

Note: Maximum DFT when brushing: 100 µm (4.0 mils)

Overcoating interval for DFT up to 150 µm (6.0 mils) For application in atmospheric exposure and industrial PC						
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 Maximum	16 hours Extended	9 hours Extended	6 hours Extended	4 hours Extended	3 hours Extended
polyurethanes	Minimum Maximum	48 hours 6 months	30 hours 5 months	18 hours 2.5 months	9 hours 1.5 months	5 hours 14 days
various single pack coatings (such as alkyds and acrylics)	Minimum Maximum	24 hours 14 days	24 hours 14 days	16 hours 14 days	8 hours 7 days	5 hours 4 days

Notes:
- Actual maximum overcoating times will be influenced by local conditions
- A detergent wash with PREP 88 or equivalent is recommended prior to application of topcoats after 30 days of exposure if chalking or contamination is present
- To ensure optimal adhesion of the next coat, the surface must be dry and free from all contaminations (oil, grease, chalking, etc...) which would require cleaning and/or abrading

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Overcoating interval for DFT up to 150 µm (6.0 mils) For application in cargo holds, on decks and marine areas subject to non-permanent splash and spillage of seawater and/or chemicals						
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	16 hours	9 hours	6 hours	4 hours	3 hours
	Maximum	1 month	1 month	21 days	14 days	7 days
polyurethanes	Minimum	48 hours	30 hours	18 hours	9 hours	5 hours
	Maximum	1 month	21 days	14 days	7 days	3 days

Curing time for DFT up to 150 µm (6.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
5°C (41°F)	12 hours	16 hours	25 days
10°C (50°F)	6 hours	9 hours	15 days
20°C (68°F)	2 hours	6 hours	7 days
30°C (86°F)	1 hour	4 hours	4 days
40°C (104°F)	1 hour	3 hours	48 hours

Notes:

- For cargo hold application: for full cure for hard angular cargoes, please contact your nearest PPG Protective & Marine Coatings sales office
- Adequate ventilation must be maintained during application and curing
- Should SIGMACOVER 350 or the total coating system (2 x 125 µm/2 x 5.0 mils) be applied in excess of the specified dry film thickness, then the time necessary to reach full cure will be increased

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
15°C (59°F)	4 hours
20°C (68°F)	3 hours
30°C (86°F)	2 hours
40°C (104°F)	1 hour

SAFETY PRECAUTIONS

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

- EXPLANATION TO PRODUCT DATA SHEETS INFORMATION SHEET 1411

WARRANTY

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