



New Guard Coatings Group

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AMERLOCK® 400 AL / SIGMACOVER™ 400 AL

DESCRIPTION

Two-component, high solids epoxy coating

PRINCIPAL CHARACTERISTICS

- Aluminum containing surface tolerant maintenance coating
- Compatibility with a wide range of substrates and surface preparations
- High solids, low VOC
- Can be overcoated with a wide range of topcoats
- Good adhesion on most existing coatings
- Good resistance to splash and spillage of chemicals

COLOR AND GLOSS LEVEL

- Aluminum
- Semi-gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.3 kg/l (10.8 lb/US gal)
Volume solids	85 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 157.0 g/kg max. 150.0 g/l (approx. 1.3 lb/US gal)
Recommended dry film thickness	125 µm (5.0 mils) per coat
Theoretical spreading rate	6.8 m ² /l for 125 µm (273 ft ² /US gal for 5.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 16 hours See overcoating tables
Full cure after	7 days
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 36 months when stored cool and dry

Notes:

- See ADDITIONAL DATA - Overcoating intervals
- See ADDITIONAL DATA - Curing time

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, 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-St2 for good corrosion protection
- Shop primed steel; pretreated to SPSS-Pt3 / SSPC-SP3
- Coated steel; hydrojetted to VIS WJ2/3L
- Existing sound coating systems; sufficiently roughened, dry and cleaned
- For immersion exposure: steel; blast cleaned to ISO-Sa2½

Substrate temperature and application conditions

- Surface temperature during application should be between 5°C (41°F) and 60°C (140°F)
- Surface temperature during application should be at least 3°C (5°F) above dew point
- Ambient temperature during application and curing should be between 5°C (41°F) and 50°C (122°F)
- Relative humidity during application and curing should not exceed 90%

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

- The paint should be stirred well before use, preferably by means of a mechanical mixer, to ensure homogeneity
- Add hardener to base and continue stirring until homogeneous
- The thinner should be added after mixing the two components
- Adding too much thinner results in reduced sag resistance and slower cure

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 - 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.)



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Airless spray

Recommended thinner

No extra thinner needed

Nozzle orifice

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

Nozzle pressure

15.0 - 18.0 MPa (approx. 150 - 180 bar; 2176 - 2611 p.s.i.)

Brush/roller

- Brush: apply evenly using a clean, well-loaded brush
- Application by brush or roller will provide approximately 80 µm (3.1 mils) DFT in a single-coat application

Cleaning solvent

THINNER 90-58

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
125 µm (5.0 mils)	6.8 m ² /l (273 ft ² /US gal)

Overcoating interval for DFT up to 125 µm (5.0 mils)					
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	24 hours	16 hours	8 hours	4 hours
	Maximum	3 months	3 months	2 months	1 month
polyurethanes	Minimum	36 hours	16 hours	8 hours	4 hours
	Maximum	1 month	1 month	14 days	7 days

Note: An extended recoatable window may be allowable in some circumstances, please contact your PPG representative for more details



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Curing time for DFT up to 125 µm (5.0 mils)

Substrate temperature	Dry to touch	Dry to handle	Full cure
10°C (50°F)	16 hours	3 days	21 days
20°C (68°F)	6 hours	24 hours	7 days
30°C (86°F)	4 hours	10 hours	4 days
40°C (104°F)	2 hours	8 hours	3 days

Notes:

- Adequate ventilation must be maintained during application and curing
- Drying times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions

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
40°C (104°F)	1 hour

SAFETY PRECAUTIONS

- 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

• 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
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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