New Guard Coatings Group

A global reputation to protect.

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This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

AMERLOCK® 2 GF / SIGMASHIELD™ 2

DESCRIPTION

Two-component, high solids glass flake reinforced polyamine cured epoxy coating

PRINCIPAL CHARACTERISTICS

- Low-temperature curing down to 0°C (32°F)
- Excellent abrasion and impact resistance
- High glass flake level
- Excellent resistance to corrosion
- Long-term protection at areas subject to heavy wear and tear
- Very low water permeability, due to glass flake barrier
- Tar free
- Resistant to splash and spillage of a wide range of chemicals
- Suitable for immersion service
- Compatible with cathodic protection systems
- Up to 750 µm (30.0 mils) DFT in a single coat

COLOR AND GLOSS LEVEL

- Standard and custom colors
- Eggshell

BASIC DATA AT 10°C (50°F)

Data for mixed product	
Number of components	Two
Mass density	1.5 kg/l (12.5 lb/US gal)
Volume solids	87 ± 3%
VOC (Supplied)	EPA Method 24: 172.0 g/ltr (1.4 lb/USgal)
Temperature resistance (Continuous)	To 218°C (420°F)
Temperature resistance (Intermittent)	To 232°C (450°F)
Recommended dry film thickness	200 - 750 µm (8.0 - 30.0 mils) depending on system
Theoretical spreading rate	4.4 m^2/l for 200 µm (174 ft^2/US gal for 8.0 mils)
Overcoating Interval	Minimum: 16 hours Maximum: 3 months
Full cure after	16 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
- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours
- Temperature resistance is in atmospheric condition. Please contact your PPG representative for immersion condition.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 50 – 100 µm (2.0 – 4.0 mils)
- Suitable primer must be dry and free from any contamination

Substrate temperature

- 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

INSTRUCTIONS FOR USE

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

- 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
- Very good mechanical mixing of base and hardener is essential
- Thinner should be added after mixing the components
- Filters should be removed from spray equipment

Induction time

None

Pot life

1 hour at 20°C (68°F)

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Air spray

Recommended thinner
THINNER 21-06

Volume of thinner
6 - 10%, 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.)

Airless spray

Recommended thinner
THINNER 21-06

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

Nozzle orifice
Approx. 0.53 – 0.79 mm (0.021 – 0.031 in)

Nozzle pressure
19.0 - 22.5 MPa (approx. 190 - 225 bar; 2756 - 3264 p.s.i.)

Brush/roller
- Only for touch-up and spot repair
- Due to thixotropy, it is difficult to obtain a smooth film by brush, although this does not affect performance

Cleaning solvent
THINNER 90-58

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
200 µm (8.0 mils)	4.4 m^2/l (174 ft^2/US gal)
750 µm (30.0 mils)	1.2 m^2/l (47 ft^2/US gal)

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Overcoating interval for DFT up to 300 µm (12.0 mils)				
Overcoating with...	**Interval**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself	Minimum	16 hours	7 hours	4 hours
	Maximum	1 month	1 month	1 month
Two-component polyurethane coatings	Minimum	16 hours	7 hours	4 hours
	Maximum	14 days	7 days	4 days

Notes:
- Surface should be dry and free from any contamination
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- An extended recoatable window may be allowable in some circumstances, please contact your PPG representative for more details

Curing time for DFT up to 300 µm (12.0 mils)		
Substrate temperature	**Dry to handle**	**Full cure**
10°C (50°F)	24 hours	16 days
20°C (68°F)	8 hours	8 days
30°C (86°F)	5 hours	5 days

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1422 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	2 hours
20°C (68°F)	1 hour
30°C (86°F)	30 minutes

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.

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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
• 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
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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