You have acquired this data sheet from the New Guard Coatings Group.
All information listed is correct at the time of print.

✉️ uksales@newguardcoatings.com
📞 +44 1937 586311

DESCRIPTION
Two-component, high-build, polyamine adduct-cured epoxy coating

PRINCIPAL CHARACTERISTICS
- Primarily designed for use in offshore splash zone maintenance
- Outstanding sea water resistance
- Excellent corrosion resistance
- Good abrasion resistance
- Continues to cure when immersed in water
- Long-term protection in a single-coat application
- Resistant to well designed cathodic protection
- Suitable for application on exterior of buried pipes
- Suitable on wet blast or ultra high pressure water (UHPWW) cleaned substrates (damp or dry)

COLOR AND GLOSS LEVEL
- Offwhite, yellow and black (other colors available on request)
- Gloss

Note: Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Note that product tinted to customer colors cannot be used as primer or intermediate layer in a multicoat system, only use factory grind batches. Tinted colors can be used only as last layer in a multicoat system

BASIC DATA AT 20°C (68°F)

<table>
<thead>
<tr>
<th>Data for mixed product</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of components</td>
<td>Two</td>
</tr>
<tr>
<td>Mass density</td>
<td>1.5 kg/l (12.1 lb/US gal)</td>
</tr>
<tr>
<td>Volume solids</td>
<td>85 ± 2%</td>
</tr>
<tr>
<td>VOC (Supplied)</td>
<td>Directive 1999/13/EC, SED: max. 122.0 g/kg</td>
</tr>
<tr>
<td></td>
<td>UK PG 6/23(92) Appendix 3: max. 207.0 g/l (approx. 1.7 lb/US gal)</td>
</tr>
<tr>
<td></td>
<td>EPA Method 24: 200.0 g/ltr (1.7 lb/USgal)</td>
</tr>
<tr>
<td>Recommended dry film thickness</td>
<td>200 - 1000 µm (8.0 - 40.0 mils) depending on system</td>
</tr>
<tr>
<td>Theoretical spreading rate</td>
<td>4.3 m²/l for 200 µm (170 ft²/US gal for 8.0 mils)</td>
</tr>
<tr>
<td>Dry to touch</td>
<td>3 hours</td>
</tr>
<tr>
<td>Overcoating Interval</td>
<td>Minimum: 3.5 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum: 14 days</td>
</tr>
</tbody>
</table>
### SIGMASHIELD™ 880 / AMERLOCK® 880

#### Data for mixed product

<table>
<thead>
<tr>
<th>Shelf life</th>
<th>Base: at least 24 months when stored cool and dry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hardener: at least 24 months when stored cool and dry</td>
</tr>
</tbody>
</table>

#### Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

### RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Existing pipelines may have to be cleaned first by scraper pigs and solvents

#### Substrate conditions
- Coating performance will depend upon the surface preparation degree
- Steel; blast cleaned to ISO-Sa2 or ISO-Sa2½
- Blasting profile of 40 – 80 μm (1.6 – 3.1 mils) is recommended
- Steel; hand/power tool clean in accordance with St3 or SSPC-SP3 for new building and St2 or SSPC-SP2 for maintenance, UHPWH in accordance with WJ2L/3I (SSPC-VIS-4)
- Compatible previous coat must be dry and free from any contamination

#### Substrate temperature and application conditions
- Substrate temperature during application should be at least 3°C (5°F) above dew point

### INSTRUCTIONS FOR USE

#### Mixing ratio by volume: base to hardener 75:25 (3:1)
- Thinner should be added after mixing the components
- Do not thin more than is required by appropriate application property
- Adding too much thinner results in reduced sag resistance and slower cure

#### Induction time
None

#### Pot life
2 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life
SIGMASHIELD™ 880 / AMERLOCK® 880

Air spray

Recommended thinner
THINNER 91-92

Volume of thinner
4 - 8%, depending on required thickness and application conditions

Nozzle orifice
1.5 – 3.0 mm (approx. 0.060 – 0.110 in)

Nozzle pressure
0.2 – 0.4 MPa (approx. 2 - 4 bar; 29 - 58 p.s.i.)

Airless spray

Recommended thinner
THINNER 91-92

Volume of thinner
0 - 8%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.53 – 0.69 mm (0.021 – 0.027 in)

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

Brush/roller

Recommended thinner
THINNER 91-92

Volume of thinner
0 – 5%

Cleaning solvent
THINNER 90-53

ADDITIONAL DATA

<table>
<thead>
<tr>
<th>Spreading rate and film thickness</th>
<th>Theoretical spreading rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 200 µm (8.0 mils)</td>
<td>4.3 m²/l (170 ft²/US gal)</td>
</tr>
<tr>
<td>DFT 500 µm (20.0 mils)</td>
<td>1.7 m²/l (68 ft²/US gal)</td>
</tr>
</tbody>
</table>
Overcoating interval for DFT up to 500 µm (20.0 mils)

<table>
<thead>
<tr>
<th>Overcoating with...</th>
<th>Interval</th>
<th>-5°C (23°F)</th>
<th>5°C (41°F)</th>
<th>10°C (50°F)</th>
<th>20°C (68°F)</th>
<th>30°C (86°F)</th>
<th>40°C (104°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>itself</td>
<td>Minimum</td>
<td>36 hours</td>
<td>14 hours</td>
<td>7 hours</td>
<td>3.5 hours</td>
<td>2 hours</td>
<td>1.5 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>2 months</td>
<td>1.5 months</td>
<td>1 month</td>
<td>28 days</td>
<td>21 days</td>
<td>14 days</td>
</tr>
<tr>
<td>epoxy coatings</td>
<td>Minimum</td>
<td>36 hours</td>
<td>14 hours</td>
<td>7 hours</td>
<td>3.5 hours</td>
<td>2 hours</td>
<td>1.5 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>1 month</td>
<td>28 days</td>
<td>21 days</td>
<td>14 days</td>
<td>7 days</td>
<td>4 days</td>
</tr>
<tr>
<td>polyurethanes</td>
<td>Minimum</td>
<td>48 hours</td>
<td>22 hours</td>
<td>14 hours</td>
<td>10 hours</td>
<td>6 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>1 month</td>
<td>28 days</td>
<td>21 days</td>
<td>14 days</td>
<td>7 days</td>
<td>4 days</td>
</tr>
</tbody>
</table>

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 500 µm (20 mils)

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Dry to touch</th>
<th>Dry to handle</th>
<th>Full cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5°C (23°F)</td>
<td>24 hours</td>
<td>48 hours</td>
<td>30 days</td>
</tr>
<tr>
<td>5°C (41°F)</td>
<td>10 hours</td>
<td>24 hours</td>
<td>18 days</td>
</tr>
<tr>
<td>10°C (50°F)</td>
<td>5 hours</td>
<td>16 hours</td>
<td>14 days</td>
</tr>
<tr>
<td>20°C (68°F)</td>
<td>3 hours</td>
<td>8 hours</td>
<td>7 days</td>
</tr>
<tr>
<td>30°C (86°F)</td>
<td>2 hours</td>
<td>5 hours</td>
<td>5 days</td>
</tr>
<tr>
<td>40°C (104°F)</td>
<td>1 hour</td>
<td>3 hours</td>
<td>3 days</td>
</tr>
</tbody>
</table>

Notes:
- For repair of jetties, piling etc. between tides, SIGMASHIELD 880 can be immersed within 30 minutes. Whitening can be happened for dark color, but will not affect anti-corrosive performances.
- The curing time is related to the DFT of the paint and ventilation of the drying condition. High DFT and poor ventilation will slow curing
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)

<table>
<thead>
<tr>
<th>Mixed product temperature</th>
<th>Pot life</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°C (50°F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>20°C (68°F)</td>
<td>2 hours</td>
</tr>
<tr>
<td>30°C (86°F)</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

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
SIGMASHIELD™ 880 / AMERLOCK® 880

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
- SAFETY INDICATIONS
- SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD
- SAFE WORKING IN CONFINED SPACES
- DIRECTIVES FOR VENTILATION PRACTICE

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG’s specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer’s discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer’s failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG’s knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user’s responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer’s responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.