



New Guard Coatings Group

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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.

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SIGMALINE™ 855

DESCRIPTION

Two-component, solvent-free polyurethane coating

PRINCIPAL CHARACTERISTICS

- Solvent-free coating for the protection of external of pipelines and underground storage tanks
- Certified to GBE/CW6 Part 1, meets EN10290
- Excellent corrosion resistance
- Fast-curing
- Good abrasion and impact resistance
- Excellent adhesion
- Good water resistance

COLOR AND GLOSS LEVEL

- Blue, gray, redbrown
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.7 kg/l (14.2 lb/US gal)
Volume solids	100%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 1 g/kg (RAL 9006) max. 2.0 g/l (approx. 0.0 lb/US gal)
Recommended dry film thickness	500 - 1500 µm (20.0 - 60.0 mils) depending on requirements
Theoretical spreading rate	2.0 m ² /l for 500 µm (80 ft ² /US gal for 20.0 mils) 0.7 m ² /l for 1500 µm (27 ft ² /US gal for 60.0 mils)
Dry to touch	30 minutes
Full cure after	4 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 6 months when stored cool and dry

Notes:

- See ADDITIONAL DATA - Spreading rate and film thickness
- See ADDITIONAL DATA - Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Atmospheric exposure conditions

- For atmospheric exposure a topcoat of SIGMADUR 520 is recommended



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Substrate temperature and application conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
 - Recommending substrate temperature during application is between 10°C (50°F) to 50°C (122°F) and max. allowing temperature is 60°C (140°F)
 - The substrate temperature must be at least 3°C(5°F) above dew point
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INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- Application with twin-feed hot airless spray equipment
 - No thinner should be added
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Induction time

None

Pot life

1 minute at 60°C (140°F)

Note: See ADDITIONAL DATA – Pot life

Application

- For a good intercoat adhesion it is necessary that a coated surface which should be repaired or completely recoated is roughened up by means of sweep blasting or abrading
 - For manual repaint of small damages special repair sets are available called: "SIGMALINE 855 REPAIR", Product Data Sheet (7655RP)
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Airless spray

- Twin-feed, hot airless spray
- Pumping viscosity is achieved at 40°C (104°F) to 60°C (140°F)
- Temperature in the mixing unit must be between 55°C (131°F) to 65°C (149°F)

Recommended thinner

No thinner should be added

Nozzle orifice

Approx. 0.58 – 0.79 mm (0.023 in – 0.031 in)

Nozzle pressure

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

Cleaning solvent

THINNER 91-83

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Cleaning procedures

- Mixed material will become insoluble within a few minutes after mixing at 60°C (140°F)
- Parts of the spraying equipment containing mixed base and hardener must be cleaned immediately after completion of the job or during any interruption

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
500 µm (20.0 mils)	2.0 m ² /l (80 ft ² /US gal)
1000 µm (40.0 mils)	1.0 m ² /l (40 ft ² /US gal)
1500 µm (60.0 mils)	0.7 m ² /l (27 ft ² /US gal)

Note: Maximum DFT when brushing: 250 µm (10.0 mils)

Curing time for DFT up to 1500 µm (60.0 mils)			
Substrate temperature	Dry to touch	Dry to handle	Full cure
0°C (32°F)	3.5 hours	7 hours	12 days
5°C (41°F)	2 hours	4 hours	10 days
10°C (50°F)	1.5 hours	3 hours	8 days
15°C (59°F)	1 hour	1.5 hours	6 days
20°C (68°F)	30 minutes	1 hour	4 days
30°C (86°F)	15 minutes	30 minutes	48 hours
40°C (104°F)	6 minutes	15 minutes	24 hours
50°C (122°F)	3 minutes	6 minutes	12 hours

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	Pot life
20°C (68°F)	5 minutes
50°C (122°F)	2 minutes
60°C (140°F)	1 minute
70°C (158°F)	30 seconds

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SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- Although this is a solvent-free paint, care should be taken to avoid inhalation of spray mist, as well as contact between the wet paint and exposed skin or eyes
- Ventilation should be provided in confined spaces to maintain good visibility

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

• SIGMALINE™ 855 REPAIR	PRODUCT DATA SHEET	7655RP
• 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
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• SURFACE PREPARATION OF STEEL PIPES AND FITTINGS SHOP APPLICATION	INFORMATION SHEET	1492
• INTERNAL CHEMICAL CLEANING OF STEEL PIPES IN-SITU APPLICATION	INFORMATION SHEET	1493
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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