

# 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 <sup>2</sup> /l for 500 µm (80 ft <sup>2</sup> /US gal for 20.0 mils) 0.7 m <sup>2</sup> /l for 1500 µm (27 ft <sup>2</sup> /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

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### **Pot life**

1 minute at 60°C (140°F)

Note: See ADDITIONAL DATA – Pot life

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### **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)
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### **Recommended thinner**

No thinner should be added

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### **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.)

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### **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 <sup>2</sup> /l (80 ft <sup>2</sup> /US gal)
1000 µm (40.0 mils)	1.0 m <sup>2</sup> /l (40 ft <sup>2</sup> /US gal)
1500 µm (60.0 mils)	0.7 m <sup>2</sup> /l (27 ft <sup>2</sup> /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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