SIGMALINE™ 855 (11)

DESCRIPTION

Two-component, solvent-free polyurethane coating

PRINCIPAL CHARACTERISTICS

- Solvent-free coating for the protection of the internal and external of pipelines and underground storage tanks
- Excellent corrosion resistance
- Extremely fast-curing
- Good abrasion and impact resistance
- Excellent adhesion
- Good water resistance
- Approved for exterior protection by EN10290 and AWWA C222-18

COLOR AND GLOSS LEVEL

- Gray, blue, offwhite
- 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	100%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 1.0 g/kg max. 1.0 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	0.7 m^2/l for 1500 µm (27 ft^2/US gal for 60.0 mils)
Dry to touch	2 minutes
Full cure after	12 hours
Shelf life	Base: at least 9 months when stored cool and dry Hardener: at least 9 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

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 75 – 100 µm (3.0 – 4.0 mils)

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Substrate temperature and application conditions

- Substrate temperature during application and curing should be above 10°C (50°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Relative humidity during application should not exceed 75%, and good ventilation is required

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 1:1

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

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)
- For atmospheric exposure a top coat of SigmaDur series is recommended.

Induction time

0 minute

Pot life

10 seconds at 60°C (140°F)

Note:

- See ADDITIONAL DATA – Pot life

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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 65°C (149°F) to 75°C (167°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.)

Note:

- Temperature at nozzle should be 60°C (140°F)

Cleaning solvent

- THINNER 90-53

CLEANING PROCEDURE

- Mixed material will become insoluble within a few seconds 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

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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)

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Curing time for DFT up to 1500 µm (60.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
10°C (50°F)	2 - 4 minutes	8 - 10 minutes	24 hours
20°C (68°F)	1.5 - 3 minutes	4 - 7 minutes	12 hours
40°C (104°F)	50 - 90 seconds	3 - 5 minutes	8 hours
60°C (140°F)	30 - 60 seconds	1 - 2 minutes	4 hours

Note:

- Adequate ventilation must be maintained during application and curing

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	1 minute
30°C (86°F)	20 - 30 seconds
60°C (140°F)	5 - 10 seconds

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- Contains a polyisocyanate curing agent
- 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

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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

- Information sheet | Explanation of product data sheets

WARRANTY

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LIMITATIONS OF LIABILITY

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