PPG SIGMALINE™ 855 (4:1) FC

DESCRIPTION

Two-component, solvent-free polyurethane coating

PRINCIPAL CHARACTERISTICS

- Solvent-free coating for the protection of external of pipelines and underground storage tanks
- Meets the requirements of BS EN 10290 and SANS 1217
- Excellent corrosion resistance
- Fast-curing
- Good abrasion and impact resistance
- Excellent adhesion
- Good water resistance

COLOR AND GLOSS LEVEL

- Gray
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.8 kg/l (15.2 lb/US gal)
Volume solids	100%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 1.0 g/kg 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	10 minutes
Full cure after	1.5 hours
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

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Atmospheric exposure conditions

- For atmospheric exposure a topcoat of SIGMADUR 520 is recommended

Substrate temperature and application conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Recommended 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

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 4:1

- 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)

Induction time

0 minute

Note:

- No induction time required

Pot life

40 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 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 – 0.031 in)

Nozzle pressure

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

Cleaning solvent

- THINNER 91-83

Cleaning procedure

- 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

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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)

Note:

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

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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**
5°C (41°F)	25 minutes	30 minutes	2.5 hours
10°C (50°F)	18 minutes	28 minutes	2 hours
20°C (68°F)	10 minutes	18 minutes	1.5 hours
30°C (86°F)	8 minutes	14 minutes	1.5 hours
40°C (104°F)	3 minutes	7 minutes	1.5 hours
50°C (122°F)	2 minutes	3 minutes	1 hour

Note:

- Adequate ventilation must be maintained during application and curing

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
20°C (68°F)	1.5 minutes
50°C (122°F)	50 seconds
60°C (140°F)	40 seconds
70°C (158°F)	20 seconds

SAFETY PRECAUTIONS

- 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
- See Safety Data Sheet and product label for complete safety and precaution requirements
- Ventilation should be provided in confined spaces to maintain good visibility

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

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