

SIGMA EP 159 SEALER

DESCRIPTION

Two-component epoxy sealer pigmented with aluminum

PRINCIPAL CHARACTERISTICS

- Epoxy sealer for metal-sprayed steel
- Cures at temperatures down to 5°C (41°F)
- Registered as Highway Agency item 159
- Approved Network Rail RT 98 item 7.1.1

COLOR AND GLOSS LEVEL

- Gray

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.0 kg/l (8.3 lb/US gal)
Volume solids	45 ± 2%
VOC (Supplied)	UK PG 6/23(92) Appendix 3: max. 549.0 g/l (approx. 4.6 lb/US gal)
Recommended dry film thickness	25 µm (1.0 mils)
Theoretical spreading rate	18.0 m²/l for 25 µm (722 ft²/US gal for 1.0 mils)
Dry to touch	45 minutes
Overcoating Interval	Minimum: 8 hours Maximum: 4 days
Full cure after	5 days
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Thermally sprayed steel must be dry and free from any contamination

Substrate temperature and application conditions

- Substrate temperature during application and curing down to 5°C (41°F) is acceptable
- Substrate temperature during application should be at least 3°C (5°F) above dew point
- Relative humidity during application and curing should not exceed 85%

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INSTRUCTIONS FOR USE

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

- The temperature of the mixed base and hardener should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity

Induction time

None

Pot life

8 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Nozzle orifice

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

Nozzle pressure

0.3 – 0.4 MPa (approx. 3 – 4 bar; 44 – 58 p.s.i.)

Airless spray

Nozzle orifice

Approx. 0.43 – 0.58 mm (0.017 – 0.023 in)

Nozzle pressure

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

Cleaning solvent

THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
25 µm (1.0 mils)	18.0 m ² /l (722 ft ² /US gal)

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Overcoating interval for DFT up to 25 µm (1.0 mils)

Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	8 hours	8 hours	6 hours
	Maximum	4 days	4 days	4 days

Curing time for DFT up to 25 µm (1.0 mils)

Substrate temperature	Dry to touch	Dry to handle	Full cure
10°C (50°F)	1.5 hours	4 hours	7 days
20°C (68°F)	45 minutes	3 hours	5 days
30°C (86°F)	25 minutes	1 hour	3 days

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
10°C (50°F)	10 hours
20°C (68°F)	8 hours
30°C (86°F)	4 hours

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

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	INFORMATION SHEET	1411
SAFETY INDICATIONS	INFORMATION SHEET	1430
SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490

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