



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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NORTH • SOUTH EAST • MIDLANDS • NORTH WEST • HULL • SCOTLAND

SIGMA EP 159 SEALER

4 pages

August 2012
Revision of July 2010

Description	two component epoxy sealer pigmented with aluminium
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> – epoxy sealer for metal sprayed steel – cures at temperatures down to +5°C – registered as Highway Agency item 159 – approved Network Rail RT 98 item 7.1.1
COLOURS AND GLOSS	grey
BASIC DATA AT 20 °C	(1 g/cm ³ = 8.35 lb/US gal; 1 m ² /l = 40.7 ft ² /US gal) (data for mixed product)
Mass density	1.0 g/cm ³
Volume solids	45% ± 2%
VOC (UK PG 6/23(92) appendix 3)	max. 549 g/l (approx. 4.6 lb/gal) (UK PG 6/23(92) Appendix 3)
Recommended dry film thickness	25 µm depending on system
Theoretical spreading rate	18 m ² /l
Touch dry after	45 minutes * at 20 °C
Overcoating interval	min. 8 hours * max. 4 days *
Full cure after	5 days * at 20 °C (data for components)
Shelf life (cool and dry place)	at least 12 months * see additional data
RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES	<ul style="list-style-type: none"> – thermally sprayed steel and dry and free from any contamination – during application and curing a substrate temperature down to 5°C is acceptable provided substrate is dry and free from any contamination – substrate temperature must be at least 3°C above dew point – maximum relative humidity during application and curing is 85% <p style="margin-left: 20px;">mixing ratio by volume: base to hardener 80 : 20</p>
INSTRUCTIONS FOR USE	<ul style="list-style-type: none"> – the temperature of the mixed base and hardener should preferably be above 15°C, otherwise extra solvent may be required to obtain application viscosity
Pot life	8 hours at 20 °C *see additional data
Induction time	– none
AIR SPRAY	
Nozzle orifice	1.5 - 3 mm
Nozzle pressure	0.3 - 0.4 MPa (= approx. 3 - 4 bar; 44 - 58 p.s.i.)

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AIRLESS SPRAY

Nozzle orifice approx. 0.43 - 0.58 mm (= 0.017 - 0.023 in)
 Nozzle pressure 15 MPa (= approx. 150 bar; 2176 p.s.i.)

CLEANING SOLVENT

– Thinner 90-53

Film thickness and spreading rate

theoretical spreading rate m ² /l	18.0
dft in µm	25

Overcoating table for Sigma EP 159 Sealer

substrate temperature	10°C	20°C	30°C
minimum interval	8 hours	8 hours	6 hours
maximum interval	4 days	4 days	4 days

Curing

Curing table for Sigma EP 159 Sealer for dft of 25 µm

substrate temperature	touch dry	full cure	dry to handle
10°C	90 min.	7 days	4 hours
20°C	45 min.	5 days	3 hours
30°C	25 min.	3 days	1 hour

– adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)

Pot life (at application viscosity)

10 °C	10 hours
20 °C	8 hours
30 °C	4 hours

Worldwide availability

Whilst it is always the aim of Sigma Coatings to supply the same product on a worldwide basis, 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.

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REFERENCES

Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety	
Explosion hazard - toxic hazard	see information sheet 1431
Safe working in confined spaces	see information sheet 1433
Directives for ventilation practice	see information sheet 1434
Cleaning of steel and removal of rust	see information sheet 1490

SAFETY PRECAUTIONS

- for paint and recommended thinners see safety 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 vapour as well as contact between the wet paint and exposed skin or eyes

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The English text of this data sheet shall prevail over any translation thereof.

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