



New Guard Coatings Group

A global reputation to protect.

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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 110 PRIMER

4 pages

August 2012
Revision of July 2010

Description	two component zinc phosphate blast primer / sealer
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> – epoxy blast primer for steel – cures at temperatures down to +5°C – excellent adhesion to steel – excellent rust preventing properties in industrial or coastal atmospheres – registered as Highway Agency item 110 – approved Network Rail RT 98 item 7.1.2
COLOURS AND GLOSS	Buff BS 08C35 – eggshell
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	1.4 g/cm ³
Volume solids	43% ± 2%
VOC (UK PG 6/23(92) appendix 3)	max. 554 g/l (approx. 4.6 lb/gal) (UK PG 6/23(92) Appendix 3)
Recommended dry film thickness	25 - 50 µm depending on system
Theoretical spreading rate	17.2 m ² /l for 25 µm
Touch dry after	20 minutes * at 20 °C
Overcoating interval	min. 4 hours * max. 3 months
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"> – steel; blast cleaned to ISO-Sa2½, blasting profile 50 - 100 µm – galvanised steel; pretreated with Sigma Etch – during application and curing a substrate temperature down to 10°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 75 : 25</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 – too much solvent results in reduced sag resistance and slower cure – thinner should be added after mixing the components
Pot life	8 hours at 20 °C * see additional data
Induction time	– none

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AIR SPRAY

Recommended thinner Thinner 91-92
 Volume of thinner 0 - 5%, depending on required thickness and application conditions
 Nozzle orifice 1.5 - 3 mm
 Nozzle pressure 0.3 - 0.4 MPa (= approx. 3 - 4 bar; 44 - 58 p.s.i.)

AIRLESS SPRAY

Recommended thinner Thinner 91-92
 Volume of thinner 0 - 5%, depending on required thickness and application conditions
 Nozzle orifice approx. 0.43 - 0.58 mm (= 0.017 - 0.023 in)
 Nozzle pressure 15 MPa (= approx. 150 bar; 2176 p.s.i.)

BRUSH/ROLLER

Recommended thinner Thinner 91-92
 Volume of thinner 0 - 5%

CLEANING SOLVENT

– Thinner 90-53

Film thickness and spreading rate

theoretical spreading rate m ² /l	17.2	12.3	8.6
dft in µm	25	35	50

Overcoating table for Sigma EP 110 Primer

substrate temperature	10°C	20°C	30°C
minimum interval	8 hours	4 hours	3 hours
maximum interval	3 months	3 months	2 months

Curing

Curing table for Sigma EP 110 Primer for dft up to 50 µm

substrate temperature	touch dry	full cure	dry to handle
10°C	40 min.	7 days	2 hours
20°C	20 min.	5 days	1 hour
30°C	15 min.	3 days	30 min.

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

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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.

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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