

Sigma EP111 Primer

0708UK

4 pages

October 2005

DESCRIPTION

two component high solids polyamide cured recoatable zinc phosphate epoxy primer.

PRINCIPAL CHARACTERISTICS

- general purpose epoxy primer for steel and concrete structures in atmospheric exposure
- can be recoated with various two component and conventional coatings even after long weathering periods
- free from lead and chromate containing pigments
- excellent rust preventing properties in industrial or coastal atmospheres
- tough with long term flexibility
- cure at temperature down to -5°C
- excellent adhesion to steel
- easy application, both by airless spray and brush
- VOC compliant

COLOURS AND GLOSS

Cream - eggshell

BASIC DATA AT 20°C

(1 g/cm³ = 8.25lb/US gal; 1 m²/l = 40.7 ft²/US gal)
(data for mixed product)

Mass density	approx. 1.4 g/cm ³
Solids content by volume	approx. 68% by volume
VOC (supplied)	214g/l (approx. 18.lb/gal) (E.P.A. regs. PG6/23 – 2004 Appendix 4)
Recommended dry film thickness	75-150µm
Theoretical spreading rate	6.8m ² /l for 100µm
Touch dry after	4 Hours *
Overcoating Interval	min. 8 Hours*
	Max. unlimited
Full cure after	4 Days*

(data for components)

Shelf life (cool and dry place)	at least 12 months
Flash point	base 26°C, hardener 45°C

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- steel; blast cleaned to ISO-Sa2½
- previous suitable coat dry and free from any contamination
- during application and curing a substrate temperature down to -5°C is acceptable provided the substrate is dry and free from ice.
- substrate temperature should be at least 3°C above dew point
- maximum relative humidity during application and curing is 85%

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 80:20

- 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
- thinner should be added after mixing the components

Pot life

4 Hours at 20°C*

* see additional data

AIRLESS SPRAY

Recommended thinner

Volume of thinner

Nozzle orifice

Nozzle pressure

Sigma Thinner 91-92

0-5%, depending on required thickness and application conditions

approx. 0.48mm (= 0.019in)

15MPa (= approx. 150bar; 2130psi)

AIR SPRAY

Recommended thinner

Volume of thinner

Nozzle orifice

Nozzle pressure

Sigma Thinner 91-92

0-10%, depending on required thickness and application conditions

1.5 – 3mm

0.3 - 0.4 MPa (= approx. 3-4 bar; 43-57psi)

BRUSH/ROLLER

Recommended thinner

Volume of thinner

Sigma Thinner 91-92

0-5%

CLEANING SOLVENT

Sigma Thinner 90-53

SAFETY PRECAUTIONS

for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets

this is a solvent based 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.

ADDITIONAL DATA

Film thickness and spreading rate

Theoretical spreading rate m ² /l	9.1	6.8	4.5
dft in µm	75	100	150

October 2005

Overcoating table for Sigma EP111 Primer

substrate temperature	-5°C	5°C	10°C	20°C	30°C	40°C
Minimum interval	48 hours	20 hours	16 hours	8 hours	6 hours	4 hours
Maximum interval	no limitation provided that the surface is free from any contamination					

- for polyurethane paints the minimum overcoating time should be raised by 100%

Curing table for Sigma EP 111 Primer for dft up to 100µm

substrate temperature	dry to handle	full cure
-5°C	24-48 hours	14 days
0°C	24 – 30 hours	10 days
5°C	18-24 hours	8 days
10°C	18 hours	6 days
15°C	12 hours	5 days
20°C	8 hours	4 days
30°C	6 hours	3 days
40°C	4 hours	2 days

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

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 sheets 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/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

LIMITATION OF LIABILITY

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Sigma Coatings has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Sigma Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

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