SIGMAGUARD 240

(SIGMAGUARD TANKSHIELD PRIMER)

4 pages

September 2005
Revision of January 2003

DESCRIPTION

two component high solids polyamine cured epoxy primer

PRINCIPAL CHARACTERISTICS

- to be used for ballast tanks (block application or in situ coating)
- outstanding sea water and crude oil resistance
- excellent corrosion resistance
- good resistance against chemically polluted water
- resistant to well designed cathodic protection
- good low temperature drying

COLOURS AND GLOSS

yellow/green - gloss

BASIC DATA AT 20°C

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

Mass density	1.4 g/cm³
Volume solids	78 ± 2%
VOC (supplied)	max. 167 g/kg (Directive 1999/13/EC, SED) max. 239 g/l (approx. 2.0 lb/gal)
Recommended dry film thickness	125 - 150 µm * in one coat application
Theoretical spreading rate	6.2 m²/l for 125 µm, 5.2 m²/l for 150 µm *
Touch dry after	7 - 8 hours at 5°C, 5 - 6 hours at 10°C, 2 - 3 hours at 20°C
Overcoating interval	min. 7 hours * max. 28 days *
Curing time	see curing table *
	(data for components)
Shelf life (cool and dry place)	at least 12 months
Flash point	base 28°C, hardener 24°C

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- steel; blast cleaned to a minimum of ISO-Sa2½, blasting profile (R_Z) 40-70 µm
- steel with approved zinc silicate shop primer; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
- previous epoxy coats; dry and free from any contamination and sufficiently roughened if necessary
- substrate temperature at least 3°C above dew point and free from ice
- maximum relative humidity during application and curing is 85%
- application at temperatures down to -5°C is possible but curing to hardness takes longer and complete cure will be reached when temperature increases

SYSTEM SPECIFICATION

marine — system sheet 3106

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 75 : 25

- 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

Induction time: none

Pot life: 2 hours at 20°C *
* see additional data

AIRLESS SPRAY

Recommended thinner	Sigma thinner 91-92
Volume of thinner	up to 10% for a one coat application of 125 µm dft
Nozzle orifice	approx. 0.53 - 0.64 mm (= 0.021 - 0.025 in)
Nozzle pressure	15 MPa (= approx. 150 bar; 2130 p.s.i.)

AIR SPRAY

Recommended thinner	Sigma thinner 91-92
Volume of thinner	5 - 15% for a one coat application of 125 µm dft
Nozzle orifice	1.8 - 2 mm
Nozzle pressure	0.3 - 0.4 MPa (= approx. 3 - 4 bar, 43 - 57 p.s.i.)

BRUSH/ROLLER

not recommended, only for spot repair and stripe coating

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 m²/l	6.2	5.2
dft in µm	125	150

max. dft when brushing: 100 µm

SIGMA COATINGS

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Overcoating table for dft up to 150 µm

substrate temperature	-5°C	5°C	10°C	20°C	30°C
minimum interval	40 hours	20 hours	14 hours	7 hours	4 hours
maximum interval	28 days	28 days	28 days	28 days	14 days

– surface should be dry and free from any contamination

Curing table for dft up to 150 µm

substrate temperature	full cure for immersion in water
-5°C	--
5°C	10 days
10°C	7 days
20°C	3 days
30°C	2.5 days

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

Pot life (at application viscosity)

15°C	3 hours
20°C	2 hours
30°C	1 hour
40°C	30 min.

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

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The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the products made by Sigma Coatings, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

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).

The data contained herein are liable to modification as a result of practical experience and continous product development. This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product.

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

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