

SIGMAGUARD 440 LT

(SIGMAGUARD TANKSHIELD LT-V COATING)

4 pages

September 2005
Revision of January 2003

DESCRIPTION

two component high solids polyamine cured epoxy coating

PRINCIPAL CHARACTERISTICS

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

COLOURS AND GLOSS

grey (green on request) - gloss

BASIC DATA AT 10°C

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

Mass density	1.5 g/cm ³
Volume solids	75 ± 2%
VOC (supplied)	max. 244 g/kg (Directive 1999/13/EC, SED) max. 354 g/l (approx. 3.0 lb/gal)
Recommended dry film thickness	100 - 175 µm * in one coat application
Theoretical spreading rate	7.5 m ² /l for 100 µm, 4.3 m ² /l for 175 µm *
Overcoating interval	min. 8 hours * max. 7 days *
Full cure after	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

- previous coat; dry, free from any contamination and sufficiently roughened if necessary
- substrate temperature should be between -10°C up to 15°C during application and curing and at least 3°C above dew point and free from ice
- during application and curing a substrate temperature down to -10°C is possible, but curing to hardness takes longer and complete resistance will be reached when temperature increases
- maximum relative humidity during application and curing is 85%

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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 5°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 10°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 mm (= 0.021 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

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	7.5	4.3
spreading rate m ² /l		
dft in µm	100	175

max. dft when brushing:

100 µm

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Overcoating table for dft up to 150 µm

substrate temperature	-10°C	-5°C	0°C	5°C	10°C	15°C
minimum interval	48 hours	24 hours	16 hours	12 hours	8 hours	5 hours
maximum interval	14 days	14 days	10 days	10 days	7 days	5 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
-10°C	--
-5°C	14 days
0°C	10 days
10°C	5 days
15°C	4 days

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

Pot life (at application viscosity)

0°C	5 hours
5°C	3 hours
10°C	2 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

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LIMITATION OF LIABILITY

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 continuous 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.

DS	7958
199429 green	4000001400
199431 green	4000002200
199427 grey	5177051400
199443 grey	5177052200