SIGMACOVER 300 LT

(SIGMA TCN-LT 300)

5 pages

September 2005
Revision of September 2004

DESCRIPTION

two component high build polyamine adduct cured coaltar epoxy primer/ coating

PRINCIPAL CHARACTERISTICS

- outstanding sea water resistance (outside hull and ballast tanks)
- excellent corrosion resistance
- good resistance against chemically polluted water
- can be applied and cures at temperatures down to -10°C
- rapid throughput of work can be maintained even at low temperatures
- resistant to well designed cathodic protection

COLOURS AND GLOSS

black, brown - eggshell

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/cm³
Volume solids	71 ± 2%
VOC (supplied)	max. 207 g/kg (Directive 1999/13/EC, SED) max. 305 g/l (approx. 2.5 lb/gal)
Recommended dry film thickness	125 - 250 µm
Theoretical spreading rate	5.7 m²/l for 125 µm, 2.8 m²/l for 250 µm *
Touch dry after	6 hours
Overcoating interval	min. 12 hours * max. see overcoating table *
Full cure after	7 days *
	(data for components)
Shelf life (cool and dry place)	at least 12 months
Flash point	base 26°C, hardener 26°C

* see additional data

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

– **for immersion in water, with or without cathodic protection**
  - steel; blast cleaned to ISO-Sa2½
  - steel with approved zinc silicate shop primer; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
  - existing suitable epoxy coating or coaltar epoxy coating; in sound condition and sufficiently roughened and free from any contamination
– **for atmospheric exposure conditions:**
  - steel; blast cleaned to ISO-Sa2 or ISO-Sa2½
  - steel with approved shop primer; power tool cleaned to SPSS-Pt2 or SPSS-Pt3
  - existing suitable epoxy coating or coaltar epoxy coating; in sound condition and sufficiently roughened and free from any contamination
– 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 and any contamination
– 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%

SYSTEM SPECIFICATION

marine — system sheets 3101, 3106

INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 86 : 14

– 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: 6 hours at 10°C *
* see additional data

AIRLESS SPRAY

Recommended thinner	Sigma thinner 91-79
Volume of thinner	0 - 5% for a dft of 250 µm 10 - 15% for a dft of 125 µm
Nozzle orifice	approx. 0.53 - 0.64 mm (= 0.021 - 0.025 in)
Nozzle pressure	15 MPa (= approx. 150 bar; 2130 p.s.i.)

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AIR SPRAY

Recommended thinner	Sigma thinner 91-79
Volume of thinner	5 - 10%, depending on required thickness and application conditions
Nozzle orifice	1.5 - 3 mm
Nozzle pressure	0.2 - 0.4 MPa (= approx. 2 - 4 bar; 28 - 57 p.s.i.)

BRUSH/ROLLER only for touch up and spot repair

Recommended thinner	Sigma thinner 91-79
Volume of thinner	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 m²/l	5.7	2.8
dft in µm	125	250

max. dft when brushing (touch up and spot repair): 70 µm

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Overcoating table for dft up to 125 µm

with SigmaCover 300 and SigmaCover 510 and other compatible paints

substrate temperature	-10°C	0°C	10°C	15°C
minimum interval	48 hours	24 hours	12 hours	8 hours
maximum interval when exposed to direct sunshine	15 days	5 days	3 days	2 days
maximum interval when **not** exposed to direct sunshine	30 days	30 days	30 days	20 days

- surface should be dry and free from any contamination and ice
- when overcoated with other paints, tar bleeding will occur
- when overcoating work is to be carried out on coats thicker than 125 µm applied in one coat, the minimum overcoating interval must be extended as follows:
  for 250 µm : 2 times as long
  for 375 µm : 3 times as long
  for 500 µm : 4 times as long
- adequate ventilation must be maintained during application and curing (please refer to sheet 1433 and 1434)
- when application has to be executed at low temperature care should be taken that the temperature of the mixed paint is at least 15°C, the induction time should be increased to at least one hour

Curing table for dft of 125 µm

substrate temperature	initial cure for exposure to seawater and to slightly polluted atmosphere	dry to handle	full cure for immersion in polluted water or crude oil
-10°C	12 days	72 hours	--
-5°C	7 days	48 hours	21 days
0°C	5 days	30 hours	15 days
5°C	3 days	20 hours	10 days
10°C	48 hours	12 hours	7 days
15°C	42 hours	8 hours	5 days

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

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Pot life (at application viscosity)

5°C	8 hours
10°C	6 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

DS	7483
179014 brown	2000002200
179015 black	8000002200