

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 | 5.7 | 2.8 |
| spreading rate m ² /l | | |
| dft in µm | 125 | 250 |

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

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with SigmaCover 300 and SigmaCover 510 and other compatible paints

Overcoating table for dft up to 125 µm

| | | | | |
|---|----------|----------|----------|---------|
| 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 |

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

| | |
|--------------|------------|
| DS | 7483 |
| 179014 brown | 2000002200 |
| 179015 black | 8000002200 |