

SIGMACOVER 650 LT

5 pages

September 2005

DESCRIPTION

two component surface tolerant high build polyamine cured epoxy primer/coating

PRINCIPAL CHARACTERISTICS

- surface tolerant coating for lower grade of steel preparation
- particularly suited as maintenance coating for dry cargo holds, decks, hulls and ballast tanks
- good impact and abrasion resistance
- compatible with various aged coatings
- excellent corrosion resistance
- resistant to splash and spillage of a wide range of chemicals
- good flexibility

COLOURS AND GLOSS

grey, redbrown, aluminium - semigloss

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

80 ± 2%

VOC (supplied)

max. 165 g/kg (Directive 1999/13/EC, SED)

max. 240 g/l (approx. 2.0 lb/gal)

Recommended dry film thickness

125 - 200 µm * depending on system and application method

Theoretical spreading rate

6.4 m²/l for 125 µm, 4.0 m²/l for 200 µm

Touch dry after

4 hours

Overcoating interval

min. see tables *

max. see tables *

Curing time

7 days

(data for components)

Shelf life (cool and dry place)

at least 12 months

Flash point

base 22°C, hardener 24°C

* see additional data

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**RECOMMENDED
SUBSTRATE CONDITIONS
AND TEMPERATURES**

- **for atmospheric exposure conditions:**
 - steel; blast cleaned to ISO-Sa2½ for excellent corrosion protection
 - steel; blast cleaned to ISO-Sa2 or power tool cleaned to ISO-St2 for good corrosion protection
 - shop primed steel; pretreated to SPSS-Pt3
 - existing sound epoxy coating systems and most sound alkyd coating systems; sufficiently roughened, dry and free from any contamination
- **for immersion in seawater:**
(resistant to Cathodic Protection in systems)
 - 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
 - first coat SigmaCover 650 LT aluminium
- substrate temperature should be between -5°C up to 15°C during application and curing and at least 3°C above dew point, dry and free from ice and any contamination
- during application and curing a substrate temperature down to -5°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

2 x 125 µm SigmaCover 650 LT

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

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

Nozzle orifice

approx. 0.48 - 0.53 mm (= 0.019 - 0.021 in)

Nozzle pressure

15 MPa (= approx. 150 bar; 2130 p.s.i.)

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AIR SPRAY

| | |
|---------------------|---|
| Recommended thinner | Sigma thinner 91-92 |
| Volume of thinner | 5 - 10%, depending on required thickness and application conditions |
| Nozzle orifice | 1.8 - 2 mm |
| Nozzle pressure | 0.3 - 0.4 MPa (= approx. 3 - 4 bar, 43 - 57 p.s.i.) |

BRUSH/ROLLER

| | |
|---------------------|---------------------|
| Recommended thinner | Sigma thinner 91-92 |
| 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 | 6.4 | 4 |
| spreading rate m ² /l | | |
| dft in µm | 125 | 200 |

max. dft when brushing:

100 µm

Overcoating table for SigmaCover 650 LT for dft up to 150 µm

| | substrate temperature | -5°C | 0°C | 5°C | 10°C | 15°C |
|---|-----------------------|----------|----------|----------|----------|---------|
| with epoxy coatings | minimum interval | 28 hours | 15 hours | 10 hours | 7 hours | 4 hours |
| with polyurethanes | minimum interval | 34 hours | 23 hours | 15 hours | 11 hours | 6 hours |
| with itself, various epoxy- and polyurethane coatings | maximum interval | 6 months | 6 months | 4 months | 2 months | 1 month |

- surface should be dry and free from any contamination
- after exceeding of the maximum interval, glossy finishes require a corresponding undercoat
- best intercoat adhesion occurs when the subsequent coat is applied before the preceding coat is fully cured
- if this time is exceeded it may be necessary to roughen the surface

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Curing table for SigmaCover 650 LT for dft up to 150 µm

| substrate temperature | touch dry | dry to handle | full cure |
|-----------------------|-----------|---------------|-----------|
| -5°C | 10 hours | 24 hours | -- |
| 0°C | 6 hours | 15 hours | 25 days |
| 5°C | 5 hours | 10 hours | 15 days |
| 10°C | 4 hours | 7 hours | 7 days |
| 15°C | 3 hours | 4 hours | 4 days |

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

Pot life (at application viscosity)

| | |
|------|---------|
| 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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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.

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|------------------|------------|
| DS | 7981 |
| 244280 grey | 5177052200 |
| 244279 redbrown | 6179052200 |
| 245019 aluminium | 9000002200 |