

# SIGMACOVER 630

(SIGMA MULTIMASTIC - SIGMACOVER ST)

5 pages

November 2007  
Revision of April 2007

<b>DESCRIPTION</b>	two component surface tolerant high build polyamine cured epoxy primer/ coating
<b>PRINCIPAL CHARACTERISTICS</b>	<ul style="list-style-type: none"> <li>- surface tolerant coating for lower grade of steel preparation</li> <li>- particularly suited as maintenance coating for dry cargo holds, decks and hulls</li> <li>- general purpose epoxy build coat or finish in protective coating systems for steel and concrete structures exposed to atmospheric land or marine conditions</li> <li>- compatible with various aged coatings</li> <li>- overcoatable with most types of coatings</li> <li>- excellent corrosion resistance</li> <li>- resistant to splash and spillage of a wide range of chemicals</li> <li>- good flexibility</li> </ul>
<b>COLORS AND GLOSS</b>	green, grey, redbrown, black, aluminum - semigloss
<b>BASIC DATA AT 68°F</b>	(8.25 lb/US gal = 1 g/cm <sup>3</sup> ; 40.7 ft <sup>2</sup> /US gal = 1 m <sup>2</sup> /l) (data for mixed product)
Mass density	11.68 lbs/gal (1.4 g/cm <sup>3</sup> )
Solids content	83 ± 2%
VOC (supplied - EPA 24)	max. 166 g/kg (Directive 1999/13/EC, SED) max. 1.9 lbs/gal (approx. 232 g/l)
Recommended dry film thickness	2.4 - 4 mils (60 - 100 µm) for brush/roller 5 - 8 mils (125 - 200 µm) for airless spray
Theoretical spreading rate	268 ft <sup>2</sup> /gal (6.6 m <sup>2</sup> /l) for 5 mils (125 µm), 167 ft <sup>2</sup> /gal (4.1 m <sup>2</sup> /l) for 8 mils (200 µm)
Touch dry after	6 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 * see additional data
<b>RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES</b>	<ul style="list-style-type: none"> <li>- <b>for atmospheric exposure conditions:</b> <ul style="list-style-type: none"> <li>• steel; blast cleaned to SSPC SP10/NACE 2 (ISO-Sa2½) for excellent corrosion protection</li> <li>• steel; blast cleaned to SSPC SP6/NACE 3 (ISO-Sa2) or power tool cleaned to SSPC SP3 (ISO-St2) for good corrosion protection</li> <li>• shop primed steel; pretreated to SSPC SP3 (SPSS-Pt3)</li> </ul> </li> </ul>

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- coated steel; hydro jetted to VIS WJ2/3 L (blasting profile; (R<sub>z</sub>) 1.6 - 2.8 mils (40 - 70 μm))
- 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 SSPC SP10/NACE 2 (ISO-Sa2½)
  - steel with approved zinc silicate shop primer; sweep blasted to SSPC SP7/NACE 4 (SPSS-Ss) or power tool cleaned to SSPC SP3 (SPSS-Pt3)
  - first coat SigmaCover 630 aluminum
- substrate temperature should be above 50° (10°C) and at least 5°F (3°C) above dew point

**INSTRUCTIONS FOR USE**

mixing ratio by volume: base to hardener 83 : 17

- the temperature of the mixed base and hardener should preferably be above 59°F (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 68°F (20°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. 0.019" - 0.021" in (= 0.48 - 0.53 mm)

Nozzle pressure

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

**CONVENTIONAL SPRAY**

Recommended thinner

Sigma thinner 91-92

Volume of thinner

5 - 10%, depending on required thickness and application conditions

Nozzle orifice

0.070" - 0.078" inch (1.8 - 2 mm)

Nozzle pressure

43 - 57 p.s.i. (= approx. 0.3 - 0.4 MPa or 3 - 4 bar)

**BRUSH/ROLLER**

Recommended thinner

Sigma thinner 91-92

Volume of thinner

0 - 5%

**CLEANING SOLVENT**

Sigma thinner 90-53

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**SAFETY PRECAUTIONS**

for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets

this is a solvent borne paint and care should be taken to avoid inhalation of spray mist or vapor as well as contact between the wet paint and exposed skin or eyes

**ADDITIONAL DATA**

**Film thickness and spreading rate**

theoretical spreading rate ft <sup>2</sup> / gal (m <sup>2</sup> /l)	561 (13.8)	268 (6.6)	337 (8.3)	167 (4.1)
dft in mil (µm) for airless spray		5 (125)		8 (200)
dft in mil (µm) for brush/roller	2.4 (60)		4 (100)	

max. dft when brushing: 4 mils (100 µm)

**Overcoating table for SigmaCover 630 for dft up to 6 mils (150 µm)**

	substrate temperature	50°F (10°C)	68°F (20°C)	86°F (30°C)	104°F (40°C)
with epoxy coatings	minimum interval	20 hours	9 hours	5 hours	3 hours
with polyurethanes	minimum interval	48 hours	24 hours	12 hours	6 hours
with itself	maximum interval	12 months	9 months	6 months	3 months
with various epoxy and polyurethane coatings	maximum interval	6 months	3 months	1 month	1 month

– surface should be dry and free from any contamination

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**Overcoating table for SigmaCover 630 with various alkyd paints**

substrate temperature	50°F (10°C)	68°F (20°C)	86°F (30°C)	104°F (40°C)
minimum interval	24 hours	16 hours	8 hours	5 hours
maximum interval	21 days	10 days	7 days	3 days

- after exceeding of the maximum interval, glossy finishes require a corresponding undercoat
- surface should be dry and free from any contamination
- 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

**Curing table for SigmaCover 630 for dft up to 6 mils (150 µm)**

substrate temperature	touch dry	dry to handle	full cure
50°F (10°C)	14 hours	20 hours	15 days
68°F (20°C)	6 hours	9 hours	7 days
86°F (30°C)	4 hours	5 hours	4 days
104°F (40°C)	2 hours	3 hours	2 days

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

**Pot life (at application viscosity)**

59°F (15°C)	3 hours
68°F (20°C)	2 hours
86°F (30°C)	1 hour
104°F (40°C)	0.5 hour

**Worldwide availability**

Whilst it is always the aim of SigmaKalon Marine & Protective 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.

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## 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
Cleaning of steel and removal of rust	see information sheet 1490

## 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 Sigma Coatings products made by SigmaKalon Marine & Protective 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.

SigmaKalon Marine & Protective 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. SigmaKalon Marine & Protective Coatings therefore does 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.

In the event of any disparity or dispute in the wording of this document, the original English text shall prevail.

	PDS	7430
179099	green	4199052200
179101	grey	5177052200
179103	redbrown	6179052200
179105	black	8000002200
179106	aluminum	9000002200
179583	RAL 6002	6002262200
179586	off-white	7001002200