

# SIGMAGUARD 720

(SIGMAGUARD EHB)

5 pages

January 2007  
Revision of September 2005

<b>DESCRIPTION</b>	two component reinforced high solids polyamine adduct cured epoxy coating
<b>PRINCIPAL CHARACTERISTICS</b>	<ul style="list-style-type: none"> <li>– tank coating with good chemical resistance against a wide range of chemicals</li> <li>– short curing periods</li> <li>– good low temperature curing</li> <li>– easy to clean</li> <li>– Recognized corrosion control coating (Lloyd's register), see sheet 1886</li> </ul>
<b>COLORS AND GLOSS</b>	light green, grey - gloss
<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	78 ± 2%
VOC (supplied - EPA 24)	max. 163 g/kg (Directive 1999/13/EC, SED) max. 1.9 lb/gal (approx. 233 g/l)
Recommended dry film thickness	5 mils (125 µm) *
Theoretical spreading rate	252 ft <sup>2</sup> /gal (6.2 m <sup>2</sup> /l) for 5 mils (125 µm) *
Touch dry after	7 - 8 hours at 41°F (5°C), 5 - 6 hours at 50°F (10°C), 2 - 3 hours at 68°F (20°C)
Overcoating interval	min. 8 hours * max. 28 days *
Full cure after	see curing table *
	(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>– steel; blast cleaned to a minimum of SSPC SP10/NACE 2 (ISO-Sa2½), blasting profile (R<sub>z</sub>) 1.6 - 2.8 mils (40 - 70 µm)</li> <li>– previous coat; dry, free from any contamination and sufficiently roughened if necessary</li> <li>– substrate temperature must be above 41°F (5°C) and at least 5°F (3°C) above dew point during application and curing</li> </ul>
<b>SYSTEM SPECIFICATION</b>	tank coatings <span style="float: right;">system sheet 3320</span>

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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 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

allow induction time before use

59°F (15°C) - 15 min.

68°F (20°C) - 10 min.

77°F (25°C) - 5 min.

Pot life

1.5 hours at 68°F (20°C) \*

\* see additional data

## AIRLESS SPRAY

Recommended thinner

Sigma thinner 91-92

Volume of thinner

up to 10% for a one coat application of 5 mils (125 µm) dft

Nozzle orifice

approx. 0.021" - 0.027" inch (= 0.53 - 0.68 mm)

Nozzle pressure

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

## CONVENTIONAL SPRAY

Recommended thinner

Sigma thinner 91-92

Volume of thinner

5 - 15% for a one coat application of 5 mil (125 µm) dft

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

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 vapor as well as contact between the wet paint and exposed skin or eyes

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## ADDITIONAL DATA

### *Film thickness and spreading rate*

theoretical spreading rate ft <sup>2</sup> /gal (m <sup>2</sup> /l)	337 (7.8)	252 (6.2)
dft in mil (µm)	4 (100)	5 (125)

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

### *Overcoating table*

substrate temperature	41°F (5°C)	50°F (10°C)	68°F (20°C)	86°F (30°C)	104°F (40°C)
minimum interval	32 hours	24 hours	8 hours	4 hours	3 hours
maximum interval	28 days	28 days	28 days	14 days	7 days

- surface should be dry and free from any contamination

### *Curing table*

substrate temperature	min. curing time of SigmaGuard 720 tank coating system before transport of	
	aliphatic petroleum products and ballast water and tank test with seawater	cargoes without note 4, 7, 8 or 11
41°F (5°C)	10 days	17 days
50°F (10°C)	7 days	14 days
59°F (15°C)	5 days	8 days
68°F (20°C)	3 days	5 days
86°F (30°C)	2.5 days	4 days
104°F (40°C)	1.5 day	3 days

- minimum curing time of SigmaGuard 720 tank coating system before transport of cargoes with note 4, 7, 8 or 11: 3 months
- for detailed information on resistance and resistance notes, please refer to the latest issue of the Cargo Resistance List
- 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)***

59°F (15°C)	3 hours
68°F (20°C)	1.5 hour
77°F (25°C)	1 hour
86°F (30°C)	30 min.

**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.

**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
Specification for mineral abrasives	see information sheet 1491

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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 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.

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