

# SIGMA EDGEGUARD PRIMER

6 pages

September 2007  
Revision of August 2007

## DESCRIPTION

two component solvent free amine cured phenolic epoxy coating

## PRINCIPAL CHARACTERISTICS

- primer for Edgeguard tank coating system for protection of ballast and fuel tanks
- good flow and wetting properties
- good resistance against a wide range of chemicals and solvents
- glossy and smooth appearance
- easy to clean
- can be applied by heavy duty single feed airless spray equipment (60:1) or by plural component spray
- reduced explosion risk and fire hazard
- non-flammable
- dry heat resistance up to 350°F (177°C)
- suitable for use with black light inspection system
- listed on QPL for MIL-PRF-23236, Type VII, Classes 5, 7, 13 & 19, Grade C

## COLORS AND GLOSS

cream - gloss

## BASIC DATA AT 68°F

(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 10.85 lbs/gal (1.3 g/cm<sup>3</sup>)  
 Solids content 100%  
 VOC (by formula) max. 0 g/kg (Directive 1999/13/EC, SED)  
 max. 0 lb/gal (0 g/l)  
 VOC (by EPA Method 24) 0.2 lb/gal (25 g/ltr)  
 see information sheet 1411  
 Recommended dry film thickness 6 - 8 mils (150 - 200 µm)  
 Theoretical spreading rate 272 ft<sup>2</sup>/gal (6.7 m<sup>2</sup>/l) for 6 mils (150 µm),  
 203 ft<sup>2</sup>/gal (5.0 m<sup>2</sup>/l) for 8 mils (200 µm) \*  
 Touch dry after 6 hours  
 Overcoating interval min. 24 hours \*  
 max. 20 days \*  
 Full cure after 5 days \*

(data for components)

Shelf life (cool and dry place) at least 24 months

\* see additional data



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## PLURAL COMPONENT AIRLESS SPRAY

Material may have to be heated above 110°F (43°C) to achieve required temperature at the tip, depending on length of line and ambient conditions. Heat base and hardener equally but do not exceed 140°F (60°C).

All temperatures should be verified with a calibrated thermometer.

Exposure of hardener to atmospheric moisture and carbon dioxide should be minimized.

Consult SigmaKalon Marine & Protective Coatings for further details.

Recommended thinner

no thinner should be added

Nozzle orifice

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

Nozzle pressure

2130 - 3000 p.s.i. (= approx. 15 - 21 Mpa; 150 - 210 bar)

Nozzle temperature

95 - 110°F (35 - 43°C)

## BRUSH/ROLLER

Recommended thinner

for stripe coating and spot repair only

no thinner should be added

## CLEANING SOLVENT

Sigma thinner 90-83

- all equipment used for application must be cleaned immediately after use
- paint inside the spraying equipment must be removed before the pot life time has been expired

## SAFETY PRECAUTIONS

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

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

- no solvent present; however, spray mist is not harmless, a fresh air mask should be used during spraying
- ventilation should be provided in confined spaces to maintain good visibility

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## ADDITIONAL DATA

### *Film thickness and spreading rate*

|   |           |           |
|---|-----------|-----------|
| theoretical   | 272 (6.7) | 203 (5.0) |
| spreading rate ft <sup>2</sup> /gal (m <sup>2</sup> /l) |           |           |
| dft in mil (µm)   | 6 (150)   | 8 (200)   |

### **measuring wet film thickness**

- a deviation is often obtained between the measured apparent wft and the real applied wft
- this is due to the thixotropy and the surface tension of the paint which retards the release of air trapped in the paint film for some time
- recommendation is to apply a WFT which is equal to the specified dft plus 2.4 mils (60 µm)

### **measuring dry film thickness**

- because of low initial hardness the dft cannot be measured within some days due to the penetration of the measuring device into the soft paint film
- the dft should be measured using a calibration foil of known thickness placed in between the coating and the measuring device

### *Overcoating table with Sigma Edgeguard*

|                       |            |             |             |             |
|-----------------------|------------|-------------|-------------|-------------|
| substrate temperature | 41°F (5°C) | 50°F (10°C) | 68°F (20°C) | 86°F (30°C) |
| minimum interval      | 80 hours   | 36 hours    | 24 hours    | 16 hours    |
| maximum interval      | 20 days    | 20 days     | 20 days     | 14 days     |

- surface should be dry and free from chalking and contamination

### *Curing table*

|                       |                         |           |
|-----------------------|-------------------------|-----------|
| substrate temperature | dry to handle rainproof | full cure |
| 41°F (5°C)            | 60 hours                | 15 days   |
| 50°F (10°C)           | 30 hours                | 7 days    |
| 68°F (20°C)           | 16 hours                | 5 days    |
| 86°F (30°C)           | 10 hours                | 3 days    |

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

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### **Pot life**

|             |         |
|-------------|---------|
| 68°F (20°C) | 60 min. |
| 86°F (30°C) | 45 min. |

- the potlife is 1 hour at a temperature of 68°F (20°C) and will be reduced at higher temperatures
- due to exothermic reaction, temperature during pot life may increase up to 140°F (60°C) at gel point

### **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.

|              |            |
|--------------|------------|
| PDS          | 5427       |
| 197328 cream | 3035001378 |
| 197329 cream | 3035002189 |
| 198884 cream | 3035003946 |