

SIGMA NOVAGUARD 200

(SIGMAGUARD CSF 7462)

5 pages

April 2006
Revision of February 2005

DESCRIPTION	two component solvent free amine cured phenolic epoxy coating
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> – two coat cargo tank coating system with good chemical resistance against a wide range of products – complies with all legislative rulings on VOC emissions – good visibility due to light color – easy to clean – reduced explosion risk and fire hazard – good edge covering capacity
COLORS AND GLOSS	blue, green - gloss
BASIC DATA AT 68°F	(8.25 lb/US gal = 1 g/cm ³ ; 40.7 ft ² /US gal = 1 m ² /l) (data for mixed product)
Mass density	10.85 lbs/gal (1.3 g/cm ³)
Solids content	100%
VOC (supplied - EPA 24)	max. 105 g/kg (Directive 1999/13/EC, SED) max. 1.2 lb/gal (approx. 142 g/l) see information sheet 1411
Recommended dry film thickness	6 mils (150 µm) per coat
Theoretical spreading rate	272 ft ² /gal (6.7 m ² /l) for 6 mils (150 µm) *
Touch dry after	6 hours
Overcoating interval	min. 24 hours * max. 2 months *
Full cure after	see curing table * (data for components)
Shelf life (cool and dry place)	at least 12 months * see additional data
RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES	<ul style="list-style-type: none"> – steel; blast cleaned to a minimum of SSPC SP10/NACE 2 (ISO-Sa2½), blasting profile (R_z) 2 - 4 mil (50 - 100 µm) – substrate temperature must be above 50°F (10°C) and at least 5°F (3°C) above dew point during application and curing
SYSTEM SPECIFICATION	marine system sheet 3328

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 80 : 20

- the temperature of the mixed base and hardener should preferably be at least 68°F (20°C)
- at lower temperature the viscosity will be too high for spray application
- no thinner should be added
- for recommended application instructions: see working procedure

Induction time

none

Pot life

1 hour at 68°F (20°C) *

* see additional data

AIRLESS SPRAY

- use heavy duty single feed airless spray equipment preferably 60:1 pump ratio and suitable high pressure hoses
- in-line heating or insulated hoses may be necessary to avoid cooling down of paint in hoses at low air temperature
- application with 45:1 airless spray equipment is possible provided in-line heated high pressure hoses are used
- length of hoses should be as short as possible

Recommended thinner

no thinner should be added

Nozzle orifice

approx. 0.021" inch (= 0.53 mm)

Nozzle pressure

at 68°F (20°C) (paint temperature) min. 4000 p.s.i. (= approx. 28 MPa or 280 bar)

at 86°F (30°C) (paint temperature) min. 3000 p.s.i. (= approx. 22 MPa or 220 bar)

BRUSH/ROLLER

for stripe coating and spot repair only

Recommended thinner

no thinner should be added

CLEANING SOLVENT

Sigma thinner 90-83 (preferred) or Sigma thinner 90-53

- 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

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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

ADDITIONAL DATA

Film thickness and spreading rate

theoretical	272 (6.7)
spreading rate ft ² /gal (m ² /l)	
dft in mil (µm)	6 (150)

max. dft when brushing: 6 - 8 mils
(150 - 200 µm)

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 mils (50 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

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Overcoating with Sigma Novaguard 200

substrate temperature	50°F (10°C)	68°F (20°C)	86°F (30°C)
minimum interval	36 hours	24 hours	16 hours
maximum interval	3 months	2 months	1 month

- surface should be dry and free from any contamination

Curing table

substrate temperature	dry to handle	full cure
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)

Pot life (at application viscosity)

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

- due to exothermic reaction, temperature during and after mixing may increase

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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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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