SIGMACAP PRICOAT 1000 (SIGMAGUARD CSF ME)

Four sheet issue May 2006

DESCRIPTION

two component solvent free epoxy coating

PRINCIPAL CHARACTERISTICS

- one coat protection for steel structures, giving excellent corrosion resistance
- excellent resistance against wear and tear
- good resistance to various chemicals
- suitable as a topcoat in solvent free systems, e.g. concrete sewage systems
- can be applied by heavy duty single feed airless spray equipment (60 : 1)
- eliminates explosion risk and fire hazard

COLOUR AND GLOSS

black - gloss

BASIC DATA AT 20 °C

(for mixed product)

Mass density

approx. 1.3g/cm³

Solids content

100% by volume

VOC (supplied)

max. 17 g/l

Recommended

dry film thickness

300 µm

Theoretical

spreading rate

3.3 m²/ltr for 300 µm*

Touch dry after

approx. 8 hours

Overcoating interval

min. 24 hours* max. 20 days*

Full cure after

5 days

Shelf life (cool, dry place)

at least 12 months

Flashpoint

base and hardener above 65 °C

* see additional data

RECOMMENDED

SUBSTRATE CONDITIONS

- steel; blast cleaned to ISO-Sa21/2

- blasting profile; (Rz) 50 100 µm
- substrate temperature should be above 5 °C and at least 3 °c above the dew point

SYSTEM SPECIFICATION

marine

1 x 300 µm Sigmaguard CSF

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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 be above 20 °C

- at lower temperatures the viscosity will be too high for spray application

- no thinner should be used

Induction time at 20 °C none

Pot life at 20 °C 1 hour*

AIRLESS SPRAY - heavy duty single feed airless spray equipment preferably a 60 : 1 pump

- in-line heating or insulated hoses may be necessary to avoid

cooling down of paint in hoses at low temperatures

- application with 45 : 1 airless spray is possible provided in-line heated high pressure hoses are used

nigh pressure noses are used

- in case of using 45:1 airless spray the paint must be heated to approx

30 °C in order to obtain the right application viscosity

- length of hoses should be as short as possible

Recommended thinner

Nozzle orifice Nozzle pressure no thinner to be added approx. 0.53mm (0.021 inch)

at 20 °C paint temperature – min. 280 bar (approx. 4000 p.s.i.) at 30 °C paint temperature – min. 220 bar (approx. 3000 p.s.i.)

BRUSH AND ROLLER

- recommended only for spot repair and stripe coating

- due to thixotropic nature it is difficult to obtain a smooth film by brush, but

this will not influence the performance

Recommended thinner no thinner to be added

CLEANING SOLVENT 90-53 (flashpoint 30 °C)

SAFETY PRECAUTIONS





see safety sheets 1430, 1431 and MSDS 0678 for information on LEL and TLV values

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

Minimum ventilation air quantity required for 1 ltr of:

mixed paint a. to reach 10% of LEL 1 m³

b. to reach TLV 22 m³

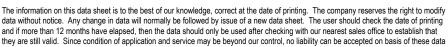
Sigma thinner 90-53 a. to reach 10% of LEL 156 m³

b. to reach TLV 3501 m³

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ADDITIONAL DATA

Film thickness and spreading rate

Dry film thickness in		
microns (µm)	300	400
Theoretical spreading		
rate (m²/l)	3.3	2.5

Minimum dft for closed film with airless spray:

200 µm

Maximum dft for brush application:

 $100 - 150 \mu m$

Note: maximum dft is for overlap areas only

- Measuring wet film thickness

- a deviation is often obtained between the measured apparent wft and the actual applied wft
- this is due to the thixotropic nature of the paint and the surface tension of the paint by which the release of air in the paint film takes some time
- recommendation is to apply a wft which is equal to the desired dft plus 60 $\,\mu m$

- measuring dry film thickness

- because of low initial hardness, the dft cannot be measured for 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 between the coating and the measuring device

Overcoating table with Sigmaguard CSF (spot repair and stripe coating)

Substrate				
temperature	5 °C	10 °C	20 °C	30 °C
Minimum	80	36	24	16
interval	hours	hours	hours	hours
Maximum	20	20	20	14
interval	days	days	days	days

Substrate should be dry and free from chalking and contamination

Curing table

Substrate	Dry to	Full
temperature	handle	cure
5 °C	60 hours	15 days
10 °C	30 hours	7 days
20 °C	16 hours	5 days
30 °C	10 hours	3 days

adequate ventilation must be maintained during application and curing (refer sheets 1433 and 1434)

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Pot life (at application viscosity)

Paint temperature	Pot life	
20 °C	1 hour	
30 °C	45 minutes	

REFERENCES

explanation to product data sheets on information sheet 1411

DS 0678

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