SIGMAGUARD CSF 585 | 7785

Two sheet issue

DESCRIPTION	two component solvent free amine cured epoxy coating
PRINCIPAL CHARACTERISTICS	- tankcoating for drinking water - can be applied by single feed airless spray equipment - eliminates explosion risk and fire hazard - good visibility in confined spaces due to light colour - approved for potable water by: KIWA, Holland, ref. K12827/01 The Water Quality Centre, UK, ref. no. M101323 Setsco Services PTE Ltd, Singapore, ref. H19631/ST Hygiene-Institut des Ruhrgebiets, Germany, ref. W 1239/99/Ju Folkeheksa, Norway, ref. 99/730-MINT/ARM/523-2 NSF, USA, ref. Standard 061 and Bodycote/MTS ref AD12060
COLOUR AND GLOSS	blue – gloss
BASIC DATA AT 20 °C	(for mixed product)
Mass density	approx. 1.3g/cm³
Solids content	100% by volume
Recommended dry film thickness	300 µm*
Theoretical spreading rate	3.3 m²/ltr for 300 µm*
Touch dry after	approx. 5 hours
Overcoating interval	min. 24 hours* max. 20 days*
Full cure after	12 days
Shelf life (cool, dry place)	at least 12 months
Flashpoint	base and hardener – above 65 °C
RECOMMENDED SUBSTRATE CONDITIONS	- steel; blast cleaned to ISO-Sa2½ - blast profile (Rz); 50 – 100 µm - substrate temperature should be above 10 °C and at least 3 °C above the dew point during application and curing

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INSTRUCTIONS FOR USE

mixing ratio by volume; base to hardener 77.5 : 22.5

- the temperature of the mixed base and hardener should be at least 20 °C
- at lower temperature 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 approx. 90 minutes*

METHOD OF APPLICATION

AIRLESS SPRAY

- heavy duty single feed airless spray equipment preferably a 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 temperatures
- application with 45 : 1 airless spray is possible provided in-line heated high pressure hoses 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 no thinner to be added
Nozzle orifice approx. 0.53mm (0.021 inch)
Nozzle pressure 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.)
at 40 °C paint temperature - min. 210 bar (approx. 3000 p.s.i.)

BRUSH AND ROLLER

- recommended only for spot repair and stripe coating

Recommended thinner no thinner to be added

CLEANING SOLVENT

Sigma thinner 90-53 (flashpoint 30 °C)

- all application equipment must be cleaned immediately after use
- paint inside the spray equipment must be removed before potlife time has expired

SAFETY PRECAUTIONS

see safety sheet 1570 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

see sheet two

Sheet two

ADDITIONAL DATA

Film thickness and spreading rate

Dry film thickness in microns (µm)	300	400
Theoretical spreading rate (m^2/l)	3.3	2.5

Minimum dft for closed film with airless spray: 200 µm

Maximum dft for brush application: 100 µm

- **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 µm

- **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 85

substrate temperature	10 °C	20 °C	30 °C	40 °C
minimum interval	4 days	24 hours	16 hours	10 hours
maximum interval	28 days	20 days	14 days	14 days

substrate should be dry and free from contamination

Curing table

Substrate temperature	**Dry to handle**	**Full cure for drinking water**
10 °C*	4 days	20 days
20 °C	1 day	12 days
30 °C	16 hours	7 days
40 °C	10 hours	5 days

* for the first 24 hours the maximum RH must be 50% or lower

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- adequate ventilation is required during application and curing
- Sigmaguard CSF 85 must not be applied at temperatures below 10 °C and for drinking water tanks a tank wash should be carried out after full cure and before the tank goes into service (see cleaning procedure below)

Pot life (at application viscosity)

Paint temperature	Pot life
20 °C	60 minutes
30 °C	45 minutes

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

Cleaning Procedure – Drinking water tank coating system

- All personnel should wear water tight suits, boots and gloves properly cleaned with sodium hypochlorite solution (1% active chlorine per litre).
- All tank sides, bottom and deckheads etc. should be brush cleaned or high pressure spray cleaned with 1 % active chlorine solution as above. (this can also be done by butterworth washing)
- All parts should be high pressure cleaned with sweet water and tanks drained.
- Concentrated active chlorine solution should be sprinkled on bottom, approx. 1 ltr/10 m².
- Tanks should be filled with sweet water top a depth of approx. 20 cm and the water should remain in the tanks for at least 2 hours (max. 24 hours)
- Tanks should be thoroughly flushed out with sweet water.
- Depending upon local regulations it may be necessary to take water samples, after filling tank completely, to check on bacteria.
- After this procedure the tanks will be fit to carry drinking water.

REFERENCES explanation to product data sheets on information sheet 1551