SIGMAGUARD 790

(SIGMAGUARD HS)

4 pages

January 2007
Revision of September 2005

DESCRIPTION

two component reinforced high solids polyamine adduct cured epoxy coating

PRINCIPAL CHARACTERISTICS

- excellent water and chemical resistance
- suitable for waste water of pH 2-10
- good abrasion resistance particularly to waste water slurries
- easy to clean
- UV exposure may adversely affect colour and gloss

COLOURS AND GLOSS

greenish grey - gloss

BASIC DATA AT 20°C

(1 g/cm³ = 8.25 lb/US gal; 1 m²/l = 40.7 ft²/US gal)
(data for mixed product)

Mass density	1.5 g/cm³
Volume solids	86 ± 2%
VOC (supplied)	max. 139 g/kg (Directive 1999/13/EC, SED) max. 215 g/l (approx. 1.8 lb/gal)
Recommended dry film thickness	150 - 250 µm
Theoretical spreading rate	5.7 m²/l for 150 µm
Touch dry after	3 - 4 hours
Overcoating interval	min. 20 hours * max. 5 days *
Full cure after	10 days *
	(data for components)
Shelf life (cool and dry place)	at least 12 months

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- suitable primer; (Sigma Phenguard 930 preferred for waste water exposure)
- dry and free from any contamination
- substrate temperature should be above 5°C and at least 3°C above dew point

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 77 : 23

- the temperature of the mixed base and hardener should preferably be above 15°C, otherwise extra solvent may be required to obtain application viscosity
- too much solvent results in reduced sag resistance
- thinner should be added after mixing the components

Induction time: none

Pot life: 3 hours at 20°C *
* see additional data

AIRLESS SPRAY

Recommended thinner: Sigma thinner 91-92
Volume of thinner: 5 - 10%, depending on required thickness and application conditions
Nozzle orifice: approx. 0.53 mm (= 0.021 in)
Nozzle pressure: 15 MPa (= approx. 150 bar; 2130 p.s.i.)

AIR SPRAY

Recommended thinner: Sigma thinner 91-92
Volume of thinner: 10 - 15%, depending on required thickness and application conditions
Nozzle orifice: 1.5 - 2 mm
Nozzle pressure: 0.3 MPa (= approx. 3 bar; 43 p.s.i.)

BRUSH

max. dft 75 µm
Recommended thinner: Sigma thinner 91-92
Volume of thinner: 0 - 5%

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

ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate m²/l	4.3	3.4	1.7
dft in µm	200	250	500

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Overcoating table

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval	4 days	2 days	16 hours	10 hours	8 hours
maximum interval	14 days	7 days	5 days	2 days	2 days

– surface should be dry and free from any contamination

Curing table

substrate temperature	dry to handle	full cure
5°C	5 days	21 days
10°C	2 days	15 days
20°C	16 hours	10 days
30°C	10 hours	5 days
40°C	8 hours	3 days

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

Pot life (at application viscosity)

15°C	4 hours
20°C	3 hours
25°C	2 hours
30°C	1.5 hour
40°C	1 hour

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

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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 does therefore 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 continous 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.

The English text of this document shall prevail over any translation thereof.

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