SIGMAZINC 102

(SIGMACOVER ZINC PRIMER)

4 pages

March 2007
Revision of September 2005

DESCRIPTION

two component polyamide cured zinc epoxy primer

PRINCIPAL CHARACTERISTICS

- economical zinc epoxy primer for various paint systems
- good corrosion prevention properties
- quick drying, can be overcoated after a short interval
- can serve as a holding primer for various maintenance systems for a total repair
- the superimposed system must be unsaponifiable
- complies with SSPC-Paint 20

COLOURS AND GLOSS

grey - flat

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	2.1 g/cm³
Volume solids	55 ± 2%
VOC (supplied)	max. 193 g/kg (Directive 1999/13/EC, SED) max. 410 g/l (approx. 3.4 lb/gal)
Recommended dry film thickness	25 - 50 µm depending on blasting profile; dfts of more then 50 µm are not recommended
Theoretical spreading rate	22 m²/l for 25 µm *
Touch dry after	15 min. at 20°C *
Overcoating interval	min. 6 hours * max. several months *
Curing time	7 days

(data for components)

Shelf life (cool and dry place)	at least 12 months

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- steel; blast cleaned to ISO-Sa2½
- blasting profile; (R_z) 40 - 70 µm
- substrate temperature should be above 10°C and at least 3°C above dew point

INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 78 : 22

- 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 and slower cure
- thinner should be added after mixing the components

Induction time	none
Pot life	24 hours at 20°C, 6 hours at 35°C

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AIRLESS SPRAY

Recommended thinner	Sigma thinner 91-92
Volume of thinner	0 - 20%, depending on required thickness and application conditions
Nozzle orifice	approx. 0.43 - 0.48 mm (= 0.017 - 0.019 in)
Nozzle pressure	15 MPa (= approx. 150 bar; 2130 p.s.i.)

AIR SPRAY

Recommended thinner	Sigma thinner 91-92
Volume of thinner	0 - 20%, depending on required thickness and application conditions
Nozzle orifice	1.8 - 2.2 mm
Nozzle pressure	0.3 - 0.6 MPa (= approx. 3 - 6 bar; 43 - 85 p.s.i.)

BRUSH/ROLLER

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	22.0	15.7	11.0	7.3
dft in µm	25	35	50	75

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Overcoating table for dft 25 - 50 µm

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval	24 hours	8 hours	6 hours	4 hours	3 hours
maximum interval **interior**	several months when free from zinc salts and contamination				
maximum interval **exterior**	14 days in clean conditions				

- zinc rich primers can form zinc salts on the surface; preferably they should not be weathered for long periods before overcoating
- an interval of several months can be allowed under clean **interior** exposure conditions
- in industrial or marine conditions or if a long recoat interval is required, it is recommended to apply a suitable sealer direct after the minimum recoating interval
- before overcoating visible surface contamination must be removed by high pressure water cleaning, sweep blasting or mechanical cleaning

Curing table

substrate temperature	touch dry	dry to handle	full cure
10°C	40 min.	4 hours	20 days
15°C	30 min.	2 hours	10 days
20°C	15 min.	2 hours	7 days
30°C	10 min.	1 hour	5 days

- SigmaZinc 102 can be applied at temperatures between 5°C and 10°C, but the curing rate will be very low
- for applications below 5°C alternative zinc rich primers are recommended: e.g. SigmaZinc 19
- adequate ventilation must be maintained during application and curing (please refer to sheet 1433 and 1434)

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.

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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

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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