

SIGMACOVER 280 LT

6 pages

February 2010
Revision of December 2006

DESCRIPTION	two component polyamide cured epoxy primer
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> - general purpose epoxy primer in protective coating systems for steel - good adhesion to steel and galvanised steel - good flow and wetting properties - good water and corrosion resistance - suitable for touching up of weld seams and damages of epoxy coatings during construction - recoatable with most two component epoxy- and polyurethane coatings - compatible with well designed controlled cathodic protection systems - cures at temperatures down to -10°C
COLOURS AND GLOSS	yellow/green - eggshell
BASIC DATA AT 10°C	(1 g/cm ³ = 8.25 lb/US gal; 1 m ² /l = 40.7 ft ² /US gal) (data for mixed product)
Mass density	1.4 g/cm ³
Volume solids	57 ± 2%
VOC (supplied)	max. 332 g/kg (Directive 1999/13/EC, SED) max. 438 g/l (approx. 3.7 lb/gal)
Recommended dry film thickness	50 - 100 µm depending on system
Theoretical spreading rate	11.4 m ² /l for 50 µm, 5.7 m ² /l for 100 µm *
Touch dry after	3 hours
Overcoating interval	min. 8 hours * max. see overcoating table *
Full cure after	7 days *
	(data for components)
Shelf life (cool and dry place)	at least 24 months * see additional data

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- **for immersion exposure:**
 - steel or steel with not approved zinc silicate shop primer; blast cleaned (dry or wet) to ISO-Sa2½, blasting profile 30 - 75 µm
 - steel with approved zinc silicate shop primer; weld seams and areas of damaged shop primer or breakdown should be blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm or power tool cleaned to SPSS-Pt3
- **IMO-MSC.215(82) Requirements for Water Ballast Tanks:**
 - steel; ISO 8501-3:2006 grade P2, with all edges treated to a rounded radius of minimum 2 mm or subject to three pass grinding
 - steel or steel with not approved zinc silicate shop primer; blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm
 - steel with approved zinc silicate shop primer; weld seams and areas of damaged shop primer or breakdown should be blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm
 - for shop primer with IMO type approval; no additional requirements
 - for shop primer without IMO type approval; blast cleaned to ISO-Sa2 removing at least 70% of intact shop primer, blasting profile 30 - 75 µm
 - dust quantity rating "1" for dust size class "3", "4" or "5", lower dust size classes to be removed if visible on the surface to be coated without magnification (ISO 8502-3:1992)
- **for atmospheric exposure conditions:**
 - steel; blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm or according to ISO-St3
 - shop primed steel; pretreated to SPSS-Pt3
 - galvanised steel; cleaned from grease, salts, contamination and roughened up
- substrate temperature should be between -10°C up to 15°C during application and curing and at least 3°C above dew point and free from ice and any contamination
- during application and curing a substrate temperature down to -10°C is possible, but curing to hardness takes longer and complete resistance will be reached when temperature increases
- maximum relative humidity during application and curing is 85%

SYSTEM SPECIFICATION

marine system sheets: 3101, 3102, 3103, 3104,
3105, 3106 (spec. 7, 8), 3107, 3108

INSTRUCTIONS FOR USE

- mixing ratio by volume: base to hardener 80 : 20
- the temperature of the mixed base and hardener should preferably be above 10°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

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Pot life 8 hours at 10°C *
* see additional data

AIRLESS SPRAY

Recommended thinner Thinner 91-92
Volume of thinner 0 - 10%, depending on required thickness and application conditions
Nozzle orifice approx. 0.46 mm (= 0.018 in)
Nozzle pressure 15 MPa (= approx. 150 bar; 2130 p.s.i.)

AIR SPRAY

Recommended thinner Thinner 91-92
Volume of thinner 0 - 10%, depending on required thickness and application conditions
Nozzle orifice 1.5 - 2 mm
Nozzle pressure 0.3 - 0.4 MPa (= approx. 3 - 4 bar; 43 - 57 p.s.i.)

BRUSH/ROLLER

Recommended thinner no extra thinner is necessary,
Volume of thinner but up to 5% Thinner 91-92 can be added if desired

CLEANING SOLVENT

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 borne 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 m ² /l	11.4	7.6	5.7
dft in µm	50	75	100

max. dft when brushing: 50 µm

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Overcoating table for SigmaCover 280 LT for dft up to 75 µm

with various two pack epoxy- and polyurethane coatings

substrate temperature	-10°C	-5°C	0°C	5°C	10°C	15°C
minimum interval	48 hours	24 hours	16 hours	12 hours	8 hours	6 hours
maximum interval when not exposed to sunshine	3 months	3 months	3 months	2 months	2 months	1 month
maximum interval when exposed to direct sunshine	2 months	2 months	2 months	1 month	1 month	1 month

- surface should be dry and free from any contamination

Overcoating table for SigmaCover 280 LT for dft up to 75 µm

with other types of paint like: most chlorinated rubber-, vinyl-, alkyd coatings

substrate temperature	-10°C	-5°C	0°C	5°C	10°C	15°C
minimum interval	24 hours	16 hours	12 hours	8 hours	4 hours	3 hours
maximum interval	10 days	10 days	7 days	4 days	4 days	4 days

- surface should be dry and free from any contamination
- glossy finishes require a corresponding undercoat

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Curing table for dft up to 75 µm

substrate temperature	touch dry	dry to handle	full cure
-10°C	20 hours	32 hours	21 days
-5°C	10 hours	16 hours	14 days
5°C	5 hours	6 hours	9 days
10°C	3 hours	4 hours	7 days
15°C	2 hours	3 hours	5 days

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

Pot life (at application viscosity)

5°C	10 hours
10°C	8 hours

Worldwide availability

Whilst it is always the aim of PPG Protective & Marine 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
PPG Protective & Marine Coatings Ballast Tank Working Procedure New Building	

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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 PPG Protective & Marine 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.

PPG Protective & Marine 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. PPG Protective & Marine 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 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.

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

	PDS	7424
181451	yellow/green	4009002200 (144497 base, 181453 hardener)