SIGMACOVER 280

5 pages

November 2010
Revision of February 2010

DESCRIPTION

two component polyamide cured epoxy primer

PRINCIPAL CHARACTERISTICS

- general purpose epoxy primer in protective coating systems for steel and non ferrous metals
- good adhesion to steel and galvanised steel
- good adhesion to non ferrous metals
- good flow and wetting properties
- good water and corrosion resistance
- cures at temperatures down to +5°C
- suitable for touching up of weld seams and damages of epoxy coatings during construction
- excellent recoatability
- can be overcoated with most alkyd-, chlorinated rubber-, vinyl-, epoxy- and two component polyurethane coatings
- suitable on wet blast cleaned substrates (damp or dry)
- compatible with well designed cathodic protection systems

COLOURS AND GLOSS

yellow/green (redbrown on request) - eggshell

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	1.3 g/cm³
Volume solids	57 ± 2%
VOC (supplied)	max. 327 g/kg (Directive 1999/13/EC, SED) max. 432 g/l (approx. 3.6 lb/gal)
Recommended dry film thickness	50 - 100 µm depending on system
Theoretical spreading rate	11.4 m²/l for 50 µm, 5.7 m²/l for 100 µm *
Touch dry after	1.5 hour
Overcoating interval	min. see tables * max. see tables *
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
  - coated steel; hydrojetted to VIS WJ2 L (blasting profile 30 - 75 µm)
- **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 above 5°C and at least 3°C above dew point during application and curing
- maximum relative humidity during application and curing is 85%

SYSTEM SPECIFICATION

marine — system sheets: 3101, 3102, 3103, 3104, 3105, 3106 (spec. 5,7), 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 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: 8 hours at 20°C *

* see additional data

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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 m²/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 for dft up to 100 µm

with various two pack epoxy- and polyurethane coatings

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval	36 hours	16 hours	8 hours	6 hours	4 hours
maximum interval when **not** exposed to sunshine	6 months	6 months	6 months	4 months	3 months
maximum interval when exposed to direct sunshine	3 months	3 months	3 months	2 months	2 months

– surface should be dry and free from any contamination

Overcoating table for SigmaCover 280 for dft up to 100 µm

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

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval	16 hours	10 hours	5 hours	3 hours	2 hours
maximum interval	21 days	21 days	10 days	7 days	4 days

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

Curing table for dft up to 100 µm

substrate temperature	touch dry	dry to handle	full cure
5°C	8 hours	13 hours	21 days
10°C	4 hours	6 hours	14 days
20°C	2 hours	2.5 hours	7 days
30°C	1 hour	1.5 hour	5 days
40°C	45 min.	1 hour	3 days

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

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Pot life (at application viscosity)

15°C	10 hours
20°C	8 hours
30°C	5 hours
35°C	4 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	

	PDS	7417
179083	yellow/green	4009002200 (144497 base, 142014 hardener)
179085	redbrown	6137002200 (144493 base, 142014 hardener)