SIGMACOVER 410

Globally Available

4 pages

August 2009
Revision of July 2009

DESCRIPTION

two component high solids, high build, polyamide cured epoxy coating

PRINCIPAL CHARACTERISTICS

- general purpose epoxy build coat in protective coating systems for steel and concrete structures exposed to atmospheric land or marine conditions
- excellent durability
- can be recoated with various two component and conventional coatings even after long weathering periods
- easy application by airless spray

COLOURS AND GLOSS

MIO and a selected range of colours - 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	1.5 - 1.9 g/cm³, depending on colour
Volume solids	80 ± 2%
VOC (supplied)	max. 126 g/kg (Directive 1999/13/EC, SED) max. 240 g/l (approx. 2.0 lb/gal)
Recommended dry film thickness	75 - 200 µm depending on system
Theoretical spreading rate	10.6 m²/l for 75 µm *
Touch dry after	3 hours *
Overcoating interval	min. 10 hours * max. 6 months *
Full cure after	7 days *
	(data for components)
Shelf life (cool and dry place)	at least 12 months

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- previous suitable primer; dry and free from any contamination and zinc salts, and sufficiently roughened if necessary
- when applied to zinc silicate, a mist coat and full coat technique is required
- substrate temperature should be at least 5°C and at least 3°C above dew point during application and curing

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	6 hours at 20°C *

* see additional data

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AIRLESS SPRAY

Recommended thinner	Thinner 91-92
Volume of thinner	0 - 10%, 30 - 40% when mist coat applied
Nozzle orifice	approx. 0.45 - 0.53 mm (= 0.018 - 0.021 in)
Nozzle pressure	20 - 25 MPa (= 200 - 250 bar; 2800 - 3500 p.s.i.)

BRUSH/ROLLER

Recommended thinner	Thinner 91-92
Volume of thinner	0 - 5%

Application by brush may show brush marking, due to the thixatropic nature of the paint and is most suitable to small areas, tight angle areas or for stripe coating or touch up.
Application by roller will leave roller marking and is suitable for minimum dft requirements only.
A roller suitable for epoxy application only must be used.

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	10.6	5.3	4.0
dft in µm	75	150	200

Overcoating table for SigmaCover 410 for dft up to 200 µm

for various two pack epoxy- or polyurethane paint

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval	36 hours	24 hours	8 hours	6 hours	4 hours
maximum interval *	--	--	--	--	--

* This product has an unlimited maximum overcoating interval provided the surface is free from chalking and other contamination.
In cases of exposure to direct sunlight or when the surface is contaminated it is recommended that the surface be cleaned and roughened to ensure good adhesion of the subsequent coating.
The optimum intercoat adhesion is obtained when the subsequent coating is applied before the full cure time of the previous coating has elapsed.

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Curing table for dft up to 200 µm

substrate temperature	touch dry	dry to handle	full cure
5°C	12 hours	30 hours	20 days
10°C	6 hours	24 hours	14 days
15°C	4 hours	10 hours	10 days
20°C	3 hours	8 hours	7 days
30°C	2 hours	6 hours	5 days
40°C	1.5 hour	4 hours	3 days

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

Pot life (at application viscosity)

10°C	12 hours
15°C	10 hours
20°C	6 hours
25°C	4 hours
30°C	3 hours
40°C	2 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

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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.

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