

# SIGMA AQUACOVER 400

4 pages

September 2009  
Revision of April 2007

<b>DESCRIPTION</b>	two component polyamine cured water borne epoxy coating
<b>PRINCIPAL CHARACTERISTICS</b>	<ul style="list-style-type: none"> <li>– general purpose epoxy build coat in protective coating systems for steel structures in atmospheric exposure</li> <li>– particularly suitable when solvents are not permitted because of health and safety reasons</li> <li>– free from lead and chromate containing pigments</li> <li>– can be overcoated with most dispersion and alkyd paints and 2 component durable finishes</li> <li>– easy application by brush/roller and (airless) spray</li> <li>– suitable for concrete floors</li> </ul>
<b>COLOURS AND GLOSS</b>	<p>limited colour range available - semigloss due to the lead and chromate free pigmentation bright colours might have a reduced opacity a primer in a suitable colour may be necessary</p>
<b>BASIC DATA AT 20°C</b>	<p>(1 g/cm<sup>3</sup> = 8.25 lb/US gal; 1 m<sup>2</sup>/l = 40.7 ft<sup>2</sup>/US gal) (data for mixed product)</p> <p>Mass density 1.3 g/cm<sup>3</sup> Volume solids 53 ± 2% VOC (supplied) max. 5 g/kg (Directive 1999/13/EC, SED) max. 6 g/l (approx. 0.1 lb/gal) see information sheet 1411</p> <p>Recommended dry film thickness 75 - 100 µm depending on system Theoretical spreading rate 7.1 m<sup>2</sup>/l for 75 µm, 5.3 m<sup>2</sup>/l for 100 µm Touch dry after 1.5 hour Overcoating interval min. 2 hours (with itself) max. 6 months Full cure after 4 days *</p> <p>(data for components)</p> <p>Shelf life (cool and dry place) at least 6 months * see additional data</p>
<b>RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES</b>	<ul style="list-style-type: none"> <li>– steel with suitable primer (e.g. Sigma AquaCover 200); dry and free from any contamination and within the recoat times</li> <li>– galvanised steel; sweep blasted or otherwise roughened; dry and free from salts and other contamination</li> <li>– substrate temperature must be above 10°C and at least 3°C above dew point during application and curing</li> <li>– maximum relative humidity during application and curing is 75%</li> </ul>

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## INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 70 : 30

- the temperature of the mixed base and hardener should preferably be above 15°C, otherwise extra water may be required to obtain application viscosity
- too much water results in reduced sag resistance and slower cure
- water should be added after mixing the components
- adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)
- must be protected from freezing at all times during storage and/or transport

Induction time

none

Pot life

3 hours at 20°C \*

\* see additional data

## AIRLESS SPRAY

Recommended thinner

tap water

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

approx. 0.48 mm (= 0.019 in)

Nozzle pressure

15 MPa (= approx. 150 bar; 2130 p.s.i.)

## BRUSH/ROLLER

Recommended thinner

tap water

Volume of thinner

0 - 5%

## CLEANING SOLVENT

tap water and Thinner 70-05

Cleaning Procedures of the spray equipment:

pulsator filter and tip filter must be taken out of the equipment and cleaned properly

following tables illustrate the cleaning procedure of the spray equipment when changing spraying from solvent borne paint to water borne paints (table 1) and from water borne paints to solvent borne paints (table 2)

## CLEANING PROCEDURE

**Table 1: from solvent borne- to water borne paints**

1st cleaning	with Thinner 90-53
2nd cleaning	with Thinner 70-05
3rd cleaning	with warm tap water (30 - 35°C) after which water borne paints can be sprayed

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**Table 2: from water borne- to solvent borne paints**

1st cleaning	with warm tap water (30 - 35°C)
2nd cleaning	with Thinner 70-05
3rd cleaning	with Thinner 90-53

Thinner 70-05 can be re-used

**SAFETY PRECAUTIONS**

for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets

although this is a water borne paint, 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**

**Overcoating table for Sigma Aquacover 400 for dft up to 100 µm**

	substrate temperature	10°C	20°C	30°C	40°C
with itself	minimum interval	3 hours	2 hours	1 hour	45 min.
with SigmaDur 520, SigmaDur 550	minimum interval	24 hours	16 hours	12 hours	8 hours
	maximum interval	6 months	6 months	6 months	6 months

**Curing table for dft up to 100 µm**

substrate temperature	touch dry	dry to handle	full cure
10°C	3 hours	18 hours	6 days
20°C	1.5 hour	6 hours	4 days
30°C	1 hour	5 hours	3 days
40°C	45 min.	4 hours	2 days

**Pot life (at application viscosity)**

10°C	4 hours
20°C	3 hours
30°C	2 hours
40°C	1 hour

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**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

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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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