

SIGMACOVER 510

4 pages

September 2009
Revision of September 2005

DESCRIPTION	two component high build, vinyl modified polyamine cured coal tar epoxy coating	
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> – to be used as second coat on top of SigmaCover 300 brown – formulated as an adhesion coat for antifouling paints – good resistance against chemically polluted water – can be applied and cures at low temperatures (application possible down to -5°C, provided the substrate is free from ice) – good abrasion resistance – tolerates a dft up to 250 µm at overlaps without sagging 	
COLOURS AND GLOSS	black - eggshell	
BASIC DATA AT 20°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	65 ± 2%	
VOC (supplied)	max. 260 g/kg (Directive 1999/13/EC, SED) max. 366 g/l (approx. 3.1 lb/gal)	
Recommended dry film thickness	75 - 150 µm (see system sheets)	
Theoretical spreading rate	8.7 m ² /l for 75 µm, 4.3 m ² /l for 150 µm *	
Touch dry after	3 hours	
Overcoating interval	min. 6 hours * max. 5 days *	
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	<ul style="list-style-type: none"> – previous coat; dry and free from any contamination – application and curing should take place at a temperature of at least 5°C in order to obtain the maximum resistance against chemical and mechanical influences – application at temperatures down to -5°C is possible but curing to hardness takes longer and complete cure will be reached when temperature increases – substrate temperature should be at least 3°C above dew point 	
SYSTEM SPECIFICATION	anticorrosive systems for underwater and boottop	system sheet: 3101

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 89 : 11

- 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

allow induction time before use
 15°C - 30 min.
 20°C - 15 min.
 25°C - 10 min.
 for application temperatures below 5°C: 60 min.

Pot life

6 hours at 20°C *
 * see additional data

AIRLESS SPRAY

Recommended thinner
 Volume of thinner
 Nozzle orifice
 Nozzle pressure

Thinner 91-79
 0 - 10%, depending on required thickness and application conditions
 approx. 0.48 - 0.58 mm (= 0.019 - 0.023 in)
 15 MPa (= approx. 150 bar; 2130 p.s.i.)

BRUSH/ROLLER

Recommended thinner
 Volume of thinner

for touch up and spot repair only
 Thinner 91-79
 0 - 5%

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	8.7	5.2	4.3
dft in µm	75	125	150

max. dft when brushing:

75 µm

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Overcoating table with most antifoulings for dft up to 150 µm

substrate temperature	-5°C	5°C	10°C	20°C	30°C	40°C
minimum interval	48 hours	18 hours	12 hours	6 hours	4 hours	3 hours
maximum interval	14 days	10 days	5 days	2 days	1 day	12 hours

- when overcoated with antifoulings tar bleeding will occur
- adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)
- when application has to be executed at low temperature care should be taken that the temperature of the mixed paint is at least 15°C, the induction time should be increased to at least one hour

Curing table for dft up to 150 µm

substrate temperature	dry to handle	initial cure before exposure to sea water	full cure
5°C	48 hours	96 hours	--
10°C	30 hours	48 hours	15 days
15°C	24 hours	30 hours	10 days
20°C	16 hours	24 hours	7 days
30°C	8 hours	18 hours	3 days
40°C	5 hours	12 hours	2 days

- exposure to sea water is permitted after the initial curing time provided the sea water temperature is 10°C or more
- if sea water temperature is 5°C the initial curing time should be extended by 50%
- if SigmaCover 510 has been applied by means of hot airless spray, exposure to sea water is permitted after an initial cure of 4 hours
- the mechanical strength, when cured at low temperature, is low initially, but will increase quickly when exposed to sea water
- 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	8 hours
20°C	6 hours
25°C	5 hours
30°C	4 hours
35°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

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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