SIGMACOVER™ 510

OVERVIEW

- Place of origin: Indonesia
- Gloss level: Eggshell
- Dry to touch: 3 hours
- Number of components: 2
- Color: Black

PRODUCT DETAIL

DESCRIPTION

Two-component, high-build, micaceous iron oxide-pigmented, polyamide-cured recoatable epoxy coating

PRINCIPAL CHARACTERISTICS

- To be used as second coat on top SigmaCover 300 brown
- Good resistance against ormulated as adhesion coat for anifouling paint chemically polluted water
- Can be applied and cures at low temperatures (application possible down to -5°C, provide the substrate is free from ice)
- Good abrasion resistance
- Tolerantes at dft up to 250 µm at overlaps without sagging

COLOR AND GLOSS LEVEL

- Black
- Eggshell

BASIC DATA AT 20°C

Data for mixed product	
Number of components	Two
Mass density	1.4 g/cm3
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 (3.0 - 6.0 mils) depending on system
Theoretical spreading rate	8.7 m2/l for 75 µm, 4.3 m2/l for 150 µm
Dry to touch	3 hours
Overcoating Interval	Minimum: 6 hours Maximum: 5 days
Full cure after	7 days

Data for mixed product	
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 12 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

ECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with approved zinc silicate shop primer; pretreated according to SPSS or power tool cleaned to SSPC SP3 (SPSS-Pt3)
- Previous coat must be sound, dry and free from any contamination

Substrate temperature

- Substrate temperature during application and curing down to -10°C (14°F) is acceptable; provided the substrate is free from ice and dry
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

SYSTEM SPECIFICATION

- SYSTEMS FOR BOOTTOP AND TOPSIDE – SYSTEM SHEET 3102
- SYSTEMS FOR DECKS – SYSTEM SHEET 3103

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 82:18

- The temperature of the mixed base and hardener should be above 10°C (50°F), otherwise extra thinner may be required to obtain application viscosity
- Thinner should be added after mixing the components
- Adding too much thinner results in reduced sag resistance

Induction time: 30min. when substrate temperature lower than 10℃

Pot life:

15°C	8 hours
20°C	6 hours
25°C	5 hours
30°C	4 hours
35°C	2 hours

Air spray:

Recommended thinner: THINNER 91-92
Volume of thinner: 0 - 5%, depending on required thickness and application conditions
Nozzle orifice: 2.0 – 3.0 mm (approx. 0.079 – 0.110 in)
Nozzle pressure: 0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

Airless spray

Recommended: thinner Sigma thinner 91-92

Volume of thinner: 0~10%, depending on required thickness and application conditions

Nozzle orifice: 0,45~0.53mm(0,018~0.021inch)

Nozzle pressure: 15-25Mpa(150~250bar, 2130~3500psi)

Brush/roller

Recommended thinner: THINNER 91-92
Volume of thinner: 0 – 5%

Cleaning solvent: SIGMA THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
75 µm (3.0 mils)	8.7 m²/l (337 ft²/US gal)
100 µm (4.0 mils)	5.2 m²/l (253 ft²/US gal)
150 µm (6.0 mils)	4.3 m²/l (168 ft²/US gal)

- Max. interval is 6 months when not exposure to direct sunlight;
- 2 months when exposure to direct sunlight at high temperature.Surface should be slightly abraded

Over coating table with most anifoulings for dft up to 150 µm		
Substrate temperature	**Minimum interval**	**Maximum interval**
-10°C (14°F)	48 hours	14 days
-5°C (23°F)	18 hours	10 days
5°C (41°F)	12 hours	5 days
10°C (50°F)	6 hours	2 days
30°C (59°F)	4 hours	1 days
40°C (68°F)	3 hours	12 hours

Curing time for DFT up to 150 µm			
Substrate temperature	**Touch dry**	**Intial 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

Notes:

- Exposure to sea water is permitted after the intial curing time provide 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
- Adequated ventilation must be maintained during application and curing

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION 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 vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, 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.