SIGMACOVER 522

4 pages

September 2009
Revision of September 2005

DESCRIPTION

two component micaceous iron oxide pigmented polyamide cured epoxy primer/sealer/coating

PRINCIPAL CHARACTERISTICS

- may be used as a primer, sealer or coating
- excellent adhesion to and sealing of weathered, cleaned zinc rich primers and metal sprayed steel
- good adhesion to properly pretreated galvanised steel
- excellent adhesion to blast cleaned steel
- can be used in systems for atmospheric or water immersed exposure conditions
- good resistance to industrial or chemical contaminated atmospheric exposure conditions
- good abrasion and impact resistance
- good adhesion characteristics for subsequent coats
- resistant to temperatures up to 200°C in dry atmospheric exposure conditions

COLOURS AND GLOSS

redbrown, greenish grey - low metallic sheen

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	1.8 g/cm³
Volume solids	60 ± 2%
VOC (supplied)	max. 210 g/kg (Directive 1999/13/EC, SED) max. 374 g/l (approx. 3.1 lb/gal)
Recommended dry film thickness	40 - 80 µm depending on system *
Theoretical spreading rate	15 m²/l for 40 µm *
Touch dry after	2 hours *
Overcoating interval	min. 8 hours * max. 1 month *
Full cure after	7 days *
	(data for components)
Shelf life (cool and dry place)	at least 24 months

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- steel; blast cleaned to ISO-Sa2½, blasting profile 40 - 70 µm
- shop primed steel; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
- zinc primed steel; free from any contamination and zinc salts
- galvanised steel; for atmospheric exposure conditions disc sanding, free from any contamination and zinc salts; for water immersed exposure conditions sweep blasting is required
- not weathered metal sprayed steel; free from any contamination and salts
- previous suitable coat; dry and free from any contamination

SIGMACOVER 522

September 2009

– substrate temperature should be above 10°C and at least 3°C above dew point during application and curing
– for atmospheric exposure conditions the minimum substrate temperature for application may be 5°C, but at low temperature the curing slows down according to the overcoating and curing tables

REMARK
when used as an adhesion primer or when a long overcoating interval is expected a max. dft of 50 µm must be specified in order to preserve the rough texture

INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 82 : 18

– 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
– thinner should be added after mixing the components

Induction time	none
Pot life	8 hours at 20°C * * see additional data

AIRLESS SPRAY

Recommended thinner	Thinner 91-92
Volume of thinner	5 - 10% for dft of approx. 80 µm 25 - 30% for dft of approx. 40 µm when used for sealing inorganic zinc and metal sprayed steel
Nozzle orifice	approx. 0.48 - 0.53 mm (= 0.019 - 0.021 in)
Nozzle pressure	12 - 15 MPa (= approx. 120 - 150 bar; 1700 - 2130 p.s.i.)

AIR SPRAY

Recommended thinner	Thinner 91-92
Volume of thinner	10 - 30%, 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	Thinner 91-92
Volume of thinner	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

SIGMACOVER 522

September 2009

ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate m²/l	15.0	7.5
dft in µm	40	80

Overcoating table for SigmaCover 522

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval dft 50 µm	36 hours	16 hours	8 hours	6 hours	4 hours
minimum interval dft 80 µm	3 days	32 hours	16 hours	12 hours	8 hours
maximum interval	28 days	28 days	28 days	14 days	7 days

– surface should be dry and free from any contamination

Note

– the minimum overcoating time should be multiplied by 5 when SigmaCover 522 is to be applied on top of an existing old (alkyd) primer or coating
– the maximum overcoating time of SigmaCover 522 could be extended up to 6 months provided the dft is not higher than 50 µm
– surface should be properly cleaned
– glossy finishes require an adhesion promoting undercoat

Curing table for dft up to 40 µm

substrate temperature	touch dry	dry to handle	full cure
5°C	8 hours	18 hours	20 days
10°C	5 hours	8 hours	15 days
15°C	3.5 hours	6 hours	10 days
20°C	2 hours	4 hours	7 days
25°C	1.5 hour	4 hours	5 days

– adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)
– for optimum resistance in tankcoating systems a minimum substrate temperature of 10°C is essential

SIGMACOVER 522

September 2009

Pot life (at application viscosity)

15°C	10 hours
20°C	8 hours
25°C	6 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

	PDS	7420
179510	greenish grey	9048052200
179508	redbrown	9028052200