

# SIGMACOVER™ 522

## DESCRIPTION

Two-component, micaceous iron oxide-pigmented, polyamide-cured epoxy primer/sealer/coating

## PRINCIPAL CHARACTERISTICS

- Excellent adhesion to, and sealing of, weathered-, cleaned-, zinc-rich primers and metal-sprayed steel
- Good adhesion to properly pretreated galvanized 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
- Pass cryogenic cyclic test from -196°C (-321°F) to 140°C (284°F)
- Resistant to temperatures up to 200°C (390°F) in dry atmospheric exposure conditions

## COLOR AND GLOSS LEVEL

- Redbrown, greenish gray
- Low metallic sheen

## BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.8 kg/l (15.0 lb/US gal)
Volume solids	60 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 210.0 g/kg max. 374.0 g/l (approx. 3.1 lb/US gal)
Recommended dry film thickness	40 - 100 µm (1.6 - 4.0 mils) depending on system
Theoretical spreading rate	15.0 m <sup>2</sup> /l for 40 µm (602 ft <sup>2</sup> /US gal for 1.6 mils) 6.0 m <sup>2</sup> /l for 100 µm (241 ft <sup>2</sup> /US gal for 4.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 8 hours Maximum: 1 month
Full cure after	7 days
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 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

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## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Shop primed steel; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
- Zinc rich epoxies and zinc silicates must be dry and free from any contamination
- Galvanized steel; for atmospheric exposure conditions disc sanding, and for water immersed exposure conditions sweep blasting is required
- Stainless steel, non-ferrous metal should be sufficiently roughened by light sanding
- Compatible previous coat must be dry and free from any contamination
- When used as an adhesion primer or when a long overcoating interval is expected a maximum DFT of 50 µm (2.0 mils) must be specified in order to preserve the rough texture

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### Substrate temperature

- Substrate temperature during application and curing should be above 10°C (50°F)
- Ambient temperature during application at 5°C (41°F) is acceptable; however curing to hardness takes longer and complete cure will be reached when the temperature increases
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

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## 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 (59°F), otherwise extra thinner may be required to obtain application viscosity
- Adding too much thinner results in reduced sag resistance
- Thinner should be added after mixing the components

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### Induction time

None

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### Pot life

8 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

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## Air spray

### Recommended thinner

THINNER 91-92

### Volume of thinner

10 - 30%, depending on required thickness and application conditions

### Nozzle orifice

1.5 - 2.0 mm (approx. 0.060 - 0.079 in)

### Nozzle pressure

0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

## Airless spray

### Recommended thinner

THINNER 91-92

### Volume of thinner

5 - 10%, 30 - 40% when mist coat applied

### Nozzle orifice

Approx. 0.48 - 0.53 mm (0.019 - 0.021 in)

### Nozzle pressure

12.0 - 15.0 MPa (approx. 120 - 150 bar; 1741 - 2176 p.s.i.)

## Brush/roller

### Recommended thinner

THINNER 91-92

### Volume of thinner

0 - 5%

## ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
40 µm (1.6 mils)	15.0 m <sup>2</sup> /l (602 ft <sup>2</sup> /US gal)
100 µm (4.0 mils)	6.0 m <sup>2</sup> /l (241 ft <sup>2</sup> /US gal)

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Overcoating interval for DFT up to 50 µm (2.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
two-component epoxies and polyurethanes	Minimum	36 hours	16 hours	8 hours	6 hours	4 hours
	Maximum	6 months	6 months	6 months	3 months	3 months

Overcoating interval for DFT up to 100 µm (4.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
two-component epoxies and polyurethanes	Minimum	3 days	32 hours	16 hours	12 hours	8 hours
	Maximum	28 days	28 days	28 days	14 days	7 days

**Notes:**

- Surface should be dry and free from any contamination
- 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
- Surface should be properly cleaned
- Glossy finishes require a corresponding undercoat

Curing time for DFT up to 100 µm (4.0 mils)			
Substrate temperature	Dry to touch	Dry to handle	Full cure
5°C (41°F)	8 hours	18 hours	N/A
10°C (50°F)	5 hours	8 hours	15 days
15°C (59°F)	3.5 hours	6 hours	10 days
20°C (68°F)	2 hours	4 hours	7 days
25°C (77°F)	1.5 hours	4 hours	5 days

**Notes:**

- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- For optimum resistance in tank coating systems a minimum substrate temperature of 10°C (50°F) is essential

Pot life (at application viscosity)	
Mixed product temperature	Pot life
15°C (59°F)	10 hours
20°C (68°F)	8 hours
25°C (77°F)	6 hours
30°C (86°F)	5 hours
35°C (95°F)	4 hours



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## 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.

## REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

## WARRANTY

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