

# PPG SIGMASHIELD® 950

## DESCRIPTION

Two-component, solvent-free amine cured epoxy coating

## PRINCIPAL CHARACTERISTICS

- High build, solvent free, glass flake reinforced coating
- Ideally suited for environments requiring high mechanical durability, including splash and tidal areas
- Excellent abrasion and impact resistance
- Can be applied by heavy-duty, single-feed, airless spray equipment
- Potential for twin-feed application
- Can be applied as a one-coat or multi-coat system in immersed environments up to 1000 µm
- Resistant to well designed cathodic protection
- Approved for NORSOK M501:2022 System 7A and 7B

## COLOR AND GLOSS LEVEL

- Grey
- Cream

## BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.4 kg/l (11.7 lb/US gal)
Volume solids	100%
VOC (Supplied)	EPA Method 24: 21.0 g/ltr (0.2 lb/USgal)
Recommended dry film thickness	300 - 1000 µm (12.0 - 40.0 mils) per coat
Theoretical spreading rate	2.0 m <sup>2</sup> /l for 500 µm (80 ft <sup>2</sup> /US gal for 20.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 8 hours Maximum: 2 months
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 a minimum of ISO Sa2½, blasting profile 50 – 100 µm (2.0 – 4.0 mils)
  - Surface must be dry and free from any contamination
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### Substrate temperature and application conditions

- Substrate temperature during application should be above 10°C (50°F)
  - Substrate temperature during application and curing should be at least 3°C (37°F) above dew point
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## INSTRUCTIONS FOR USE

### Mixing ratio by volume: base to hardener 3:1

- When mixing, the temperature of the base and hardener should be at least 20°C (68°F)
  - No thinner should be added
  - At lower temperature, the viscosity will be too high for spray application
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### Pot life

1 hour at 20°C (68°F)

Note:

- See ADDITIONAL DATA – Pot life
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### Airless spray

- Heavy-duty, single-feed airless spray equipment preferably 60:1 pump ratio and suitable high-pressure hoses

### Recommended thinner

No thinner should be added

### Nozzle orifice

Approx. 0.53 – 0.79 mm (0.021 – 0.031 in)

### Nozzle pressure

At 20°C (68°F) paint temperature min. 28.0 MPa (approx. 280 bar; 4061 p.s.i.). At 30°C (86°F) min. 22.0 MPa (approx. 220 bar; 3191 p.s.i.)

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## Brush/roller

- For stripe coating and spot repair only

## Recommended thinner

No thinner should be added

## Cleaning solvent

- THINNER 90-53 or THINNER 90-83
- All application equipment must be cleaned immediately after use
- Paint inside the spraying equipment must be removed before the pot life has been expired

## ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
400 µm (16.0 mils)	2.5 m <sup>2</sup> /l (100 ft <sup>2</sup> /US gal)
500 µm (20.0 mils)	2.0 m <sup>2</sup> /l (80 ft <sup>2</sup> /US gal)
600 µm (24.0 mils)	1.7 m <sup>2</sup> /l (67 ft <sup>2</sup> /US gal)

Overcoating interval for DFT up to 500 µm (20.0 mils)					
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	20 hours	12 hours	9 hours	5 hours
	Maximum	40 days	28 days	25 days	20 days
SIGMADUR products	Minimum	36 hours	24 hours	16 hours	9 hours
	Maximum	20 days	15 days	10 days	5 days

### Notes:

- Surface should be dry and free from any contamination
- Strong UV/Sunlight will substantially reduce the overcoating time

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Curing time for DFT up to 500 µm (20.0 mils)			
Substrate temperature	Dry to handle	Full cure	Dry to touch
10°C (50°F)	20 hours	10 days	12 hours
20°C (68°F)	12 hours	7 days	6 hours
30°C (86°F)	9 hours	5 days	4 hours

Note:

- Adequate ventilation must be maintained during application and curing

Pot life (at application viscosity)	
Mixed product temperature	Pot life
20°C (68°F)	1 hour
30°C (86°F)	45 minutes

Note:

- Due to exothermic reaction, temperature during and after mixing may increase

## Product Qualifications

- Qualified for NORSOK M501:2022 System 7A, 7B

## SAFETY PRECAUTIONS

- Although this is a solvent-free paint, care should be taken to avoid inhalation of spray mist, as well as contact between the wet paint and exposed skin or eyes
- Ventilation should be provided in confined spaces to maintain good visibility
- Read all label and Safety Data Sheet (SDS) information prior to use

## WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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

- Information sheet | Explanation of product data sheets



# PPG SIGMASHIELD® 950

## WARRANTY

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