

# SIGMAWELD™ 120

## DESCRIPTION

Two-component, polyamide-cured epoxy prefabrication primer

## PRINCIPAL CHARACTERISTICS

- Suitable for automatic application on shot blasted steel plates
- Good cutting and welding properties, including MMA and gravity welding
- Provides corrosion protection up to 6 months, when applied at a DFT of 22 µm (0.9 mils) (depending on exposure conditions and blasting profile)
- Fast drying properties
- Can be used as a first coat in various paint systems for atmospheric exposure conditions only

## COLOR AND GLOSS LEVEL

- Redbrown
- Flat

## BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.1 kg/l (9.2 lb/US gal)
Volume solids	21 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 593.0 g/kg UK PG 6/23(92) Appendix 3: max. 653.0 g/l (approx. 5.4 lb/US gal)
Recommended dry film thickness	22 µm (0.9 mils) per coat
Theoretical spreading rate	9.5 m <sup>2</sup> /l for 22 µm (374 ft <sup>2</sup> /US gal for 0.9 mils)
Dry to touch	4 minutes at 40 °C (104°F)
Overcoating Interval	Minimum: 12 hours Maximum: 6 months
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 – Curing time
- See ADDITIONAL DATA – Overcoating intervals

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)

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## Substrate temperature

- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Substrate temperature during automatic application should be between 35°C (95°F) and 40°C (104°F)

## SECONDARY SURFACE PREPARATION

- During storage and construction, contamination of the prefabrication primer should be limited
- After fabrication, surface defects should be treated according to the scheme hereafter

Secondary surface preparation	
Area	Atmospheric exposure conditions
Contamination	to be removed
Weldseams	SPSS-Pt2
Burned	SPSS-Ss (SPSS-Pt2)
Damaged corroded	SPSS-Ss (SPSS-Pt2)

## INSTRUCTIONS FOR USE

### Mixing ratio by volume: base to hardener 75:25 (3:1)

- The temperature of the mixed base and hardener should preferably be above 15°C (59°F)
- Strain mixture through a 30 – 60 mesh screen
- Mixed paint is ready for use
- Some addition of thinner (THINNER 90-53) might be necessary depending on routing, line speed and steel temperature
- Agitate continuously during application

### Pot life

24 hours at 20°C (68°F)

### Air spray

#### **Recommended thinner**

THINNER 90-53

#### **Volume of thinner**

0 - 5%, depending on required thickness and application conditions

#### **Nozzle orifice**

1.0 - 1.5 mm (approx. 0.040 - 0.060 in)

#### **Nozzle pressure**

0.15 - 0.20 MPa (approx. 2 - 2 bar; 22 - 29 p.s.i.)

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**Airless spray****Recommended thinner**

THINNER 90-53

**Volume of thinner**

0 - 5%, depending on required thickness and application conditions

**Nozzle orifice**

Approx. 0.43 - 0.58 mm (0.017 - 0.023 in)

**Nozzle pressure**

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

**Cleaning solvent**

THINNER 90-53

**ADDITIONAL DATA**

Overcoating interval for DFT up to 22 µm (0.9 mils)		
Overcoating with...	Interval	20°C (68°F)
various two-component epoxy coatings	Minimum	12 hours
	Maximum	6 months

Note: Longer overcoating intervals can be permitted when primer is still in sound condition

Curing time for solvent-free application	
Substrate temperature	Dry to touch
20°C (68°F)	6 minutes
40°C (104°F)	4 minutes

**SAFETY PRECAUTIONS**

- 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
- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets

**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.

# SIGMAWELD™ 120

## 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
• 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

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