

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 ² /l for 22 µm (374 ft ² /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)

SIGMAWELD™ 120

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.)

SIGMAWELD™ 120

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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