

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

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG Logo, Bringing innovation to the surface., and all other trademarks herein are property of the PPG group of companies.