

SIGMA ETCH

DESCRIPTION

Phosphoric acid-based etch solution for treating new, unweathered galvanized surfaces prior to painting

PRINCIPAL CHARACTERISTICS

- For pretreatment of new galvanized steel where blasting or abrasion is not possible
- May be overcoated with a wide range of protective coating systems
- May be used to give adhesion of high-temperature coatings to new galvanized steel
- Changes color on application from blue to black to indicate the effectiveness of primary pretreatment
- Meets the requirements of British Rail's 'T-wash' solution
- Not recommended for immersed conditions

COLOR AND GLOSS LEVEL

- Pale blue solution, which turns gray-black on application to clean galvanized surfaces

BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.0 kg/l (8.3 lb/US gal)
VOC (Supplied)	UK PG 6/23(92) Appendix 3: max. 335.0 g/l (approx. 2.8 lb/US gal)
Theoretical spreading rate	15.0 m ² /l for 0 μm (ft ² /US gal for 0.0 mils)
Overcoating Interval	Minimum: 2 hours Maximum: 48 hours
Shelf life	At least 12 months when stored cool and dry

Note: See ADDITIONAL DATA – Overcoating intervals

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Galvanized steel

- Galvanized surfaces are variable and the preferred method of treatment is to lightly sweep blast followed by degreasing and cleaning
- Remove all rust, dirt, moisture, grease or other contaminants from the surface
- Any traces of soluble zinc salts should be removed by abrading and washing
- Washed with fresh water to remove emulsified residues, dirt and other contaminants
- Surfaces which following application do not uniformly blacken, indicate insufficient primary surface preparation and these should be re-prepared by abrading



SIGMA ETCH

INSTRUCTIONS FOR USE

- Mix thoroughly before application
- Over-application will produce a dense black powdery layer which is unsuitable for the application of top coats
- Such areas will require either abrading or washing to remove powdery deposits otherwise the adhesion of topcoats will be adversely affected

Brush/roller

- Brush recommended, apply at 15.0 m²/l (611 ft²/US gal), roller is suitable

Recommended thinner

No extra thinner is necessary

Note: If however application results in a black powdery surface then SIGMA ETCH can be diluted with tap water

Cleaning solvent

Tap water

ADDITIONAL DATA

Overcoating interval					
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
recommended topcoats	Minimum	2 hours	2 hours	1 hour	30 minutes
	Maximum	48 hours	48 hours	48 hours	48 hours

SAFETY PRECAUTIONS

- This product contains phosphoric acid
- Before commencing application refer to Material Safety Data Sheet
- See INFORMATION SHEETS 1430, 1431
- Although this is a waterborne paint, care should be taken to avoid inhalation of spray mist, 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.



SIGMA ETCH

REFERENCES

• 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

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.ppgmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.

