

# SIGMATHERM™ 500

## DESCRIPTION

Heat resistant modified alkyd aluminium coating

## PRINCIPAL CHARACTERISTICS

- To be used for the internal and external protection of steel surfaces
- Heat-resistant up to 500°C (930°F); a minimum of 200°C (390°F) is necessary to fuse the aluminum coating
- A minimum drying time of 3 days at 20°C (68°F) should be allowed before exposure to heat
- Application by spray improves the appearance

## COLOR AND GLOSS LEVEL

- Aluminum
- Low sheen

## BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.1 kg/l (9.2 lb/US gal)
Volume solids	32 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 561.0 g/kg UK PG 6/23(92) Appendix 3: max. 600.0 g/l (approx. 5.0 lb/US gal)
Recommended dry film thickness	25 µm (1.0 mils)
Theoretical spreading rate	12.8 m <sup>2</sup> /l for 25 µm (513 ft <sup>2</sup> /US gal for 1.0 mils)
Dry to touch	1 hour
Overcoating Interval	Minimum: 24 hours Maximum: Unlimited
Shelf life	At least 24 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Substrate conditions

- Steel; blast cleaned to ISO-Sa2½ or ISO-Sa3, blasting profile 40 – 70 µm (1.6 – 2.8 mils)

### Substrate temperature and application conditions

- Substrate temperature during application should be at least 3°C (5°F) above dew point



# SIGMATHERM™ 500

## INSTRUCTIONS FOR USE

- Stir well before use
  - The temperature of the paint should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
  - Adding too much thinner results in reduced sag resistance
  - Adequate ventilation must be maintained during application and curing
- 

### **Air spray**

#### **Recommended thinner**

No thinner should be added

#### **Nozzle orifice**

2.0 – 3.0 mm (approx. 0.079 – 0.110 in)

#### **Nozzle pressure**

0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

---

### **Airless spray**

#### **Recommended thinner**

No thinner should be added

#### **Nozzle orifice**

Approx. 0.38 mm (0.015 in)

#### **Nozzle pressure**

8.0 - 12.0 MPa (approx. 80 - 120 bar; 1161 - 1741 p.s.i.)

---

### **Brush/roller**

#### **Recommended thinner**

No thinner should be added

---

### **Cleaning solvent**

- THINNER 20-05
-

# SIGMATHERM™ 500

## ADDITIONAL DATA

Overcoating interval for DFT up to 25 µm (1.0 mils)				
Overcoating with...	Interval	5°C (41°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	48 hours	24 hours	16 hours
	Maximum	Unlimited	Unlimited	Unlimited

Curing time for DFT up to 25 µm (1.0 mils)	
Substrate temperature	Dry to touch
5°C (41°F)	3 hours
20°C (68°F)	1 hour
30°C (86°F)	30 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
- See Safety Data Sheet and product label for complete safety and precaution requirements

## 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
- Guide | PPG SIGMACARE PLUS | Online guide to maintenance at sea

## 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.



# SIGMATHERM™ 500

## 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](http://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.

