

SIGMATHERM™ 540

DESCRIPTION

One-component, heat-resistant, moisture-curing silicone aluminum

PRINCIPAL CHARACTERISTICS

- Heat-resistant up to 540°C (1000°F) on steel, grit-blasted to SSPC SP10/NACE 2 (ISO-Sa2½)
- Heat-resistant up to 400°C (750°F) on rusted steel, power tool cleaned to ISO-St3
- To be used for the internal and external protection of steel surfaces
- No heat cure necessary between coats
- Excellent resistance against weathering
- Also suitable on top of zinc silicate primer
- A minimum drying time of 3 days at 20°C (68°F) should be allowed before exposure to heat
- Complies with NACE SP0198 for austenitic stainless steels and carbon steels under thermal insulation

COLOR AND GLOSS LEVEL

- Aluminum and black
- Eggshell

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	45 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 412.0 g/kg UK PG 6/23(92) Appendix 3: max. 498.0 g/l (approx. 4.2 lb/US gal)
Recommended dry film thickness	25 µm (1.0 mils)
Theoretical spreading rate	18.0 m²/l for 25 µm (722 ft²/US gal for 1.0 mils)
Dry to touch	45 minutes
Overcoating Interval	Minimum: 16 hours
Shelf life	At least 9 months when stored cool and dry

Notes:

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

SIGMATHERM™ 540

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 – 3.0 mils) or according to ISO-St3
- Suitable coating (zinc silicate primer) must be dry, free from any contamination and zinc salts
- Stainless steel; degreased and sweep blast (SSPC SP-16) cleaned to roughness of 40 – 70 µm (1.5 – 2.8 mils) with non-ferrous abrasive

Substrate temperature and application conditions

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

INSTRUCTIONS FOR USE

- Power agitate to uniform consistency
- When applying more than one coat, it is recommended that the total dry film thickness does not exceed 80 µm (3.1 mils)

Air spray

Recommended thinner

No thinner should be added

Nozzle orifice

1.5 – 2.0 mm (approx. 0.060 – 0.079 in)

Nozzle pressure

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

Brush/roller

- For Roller application the best results will be obtained by using fine foam type rollers

Cleaning solvent

THINNER 21-06

ADDITIONAL DATA

Overcoating interval for DFT up to 25 µm (1.0 mils)					
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	24 hours	16 hours	12 hours	6 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Note: Surface should be dry and free from any contamination

SIGMATHERM™ 540

Curing time for DFT up to 25 µm (1.0 mils)

Substrate temperature	Dry to touch	Dry to handle
10°C (50°F)	1 hour	5 hours
20°C (68°F)	45 minutes	3.5 hours
30°C (86°F)	30 minutes	2 hours
40°C (104°F)	15 minutes	1 hour

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

SAFETY PRECAUTIONS

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

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.

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.



SIGMATHERM™ 540

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.

