December 15, 2023 (Revision of August 12, 2022)

SIGMATHERM™ 350

DESCRIPTION

Heat-resistant silicone/acrylic finish

PRINCIPAL CHARACTERISTICS

- Excellent resistance against weathering
- After a drying time of 3 days at 20°C (68°F), a minimum temperature of 200°C (390°F) for 2 hours is necessary to obtain sufficient mechanical strength
- Heat-resistant up to 350°C (660°F)
- To be used for the internal and external protection of steel surfaces
- Widely compatible with inorganic zinc primers

COLOR AND GLOSS LEVEL

- White, aluminum (other colors available on request)
- Semi-gloss

BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	White: 1.2 kg/l (10.0 lb/US gal) Aluminum: 1.1 kg/l (9.2 lb/US gal)
Volume solids	White: 39 ± 2% Aluminum: 42 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 492 g/kg (white) Directive 2010/75/EU, SED: max. 491 g/kg (aluminum) max. 590.0 g/l (approx. 4.9 lb/gal) (white) China GB 30981-2020 (tested) 598.0 g/l (approx. 5.0 lb/gal)
Recommended dry film thickness	25 - 30 µm (1.0 - 1.2 mils)
Theoretical spreading rate	White: 15.6 m^2/l for 25 µm (626 ft^2/US gal for 1.0 mils) Aluminum: 16.8 m^2/l for 25 µm (674 ft^2/US gal for 1.0 mils)
Dry to touch	1 hour
Overcoating Interval	Minimum: 18 hours Maximum: Unlimited
Shelf life	At least 24 months when stored cool and dry

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Thermal aluminum sprayed steel or thermal zinc sprayed steel must be dry and free from any contamination
- Suitable coating (zinc silicate primer) must be dry, free from any contamination and zinc salts
- Steel; blast cleaned to a minimum of ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)

SIGMATHERM™ 350

Substrate temperature and application conditions

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

INSTRUCTIONS FOR USE

- By using a mist coat technique, it is possible to apply SIGMATHERM 350 on top of a zinc silicate primer
- Power agitate to uniform consistency

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.)

Airless spray

Recommended thinner
No thinner should be added

Nozzle orifice
Approx. 0.38 – 0.48 mm (0.015 – 0.019 in)

Nozzle pressure
12.0 - 15.0 MPa (approx. 120 - 150 bar; 1741 - 2176 p.s.i.)

Brush/roller

- Only for touch-up and spot repair

Cleaning solvent
THINNER 21-06

ADDITIONAL DATA

Spreading rate and film thickness – White	
DFT	**Theoretical spreading rate**
25 µm (1.0 mils)	15.6 m^2/l (626 ft^2/US gal)
30 µm (1.2 mils)	13.0 m^2/l (521 ft^2/US gal)

SIGMATHERM™ 350

Spreading rate and film thickness – Aluminum	
DFT	**Theoretical spreading rate**
25 µm (1.0 mils)	16.8 m^2/l (674 ft^2/US gal)
30 µm (1.2 mils)	14.0 m^2/l (561 ft^2/US gal)

Overcoating interval for DFT up to 30 µm (1.2 mils)					
Overcoating with...	**Interval**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself	Minimum Maximum	24 hours Unlimited	18 hours Unlimited	15 hours Unlimited	10 hours Unlimited

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 30 µm (1.2 mils)		
Substrate temperature	**Dry to touch**	**Dry to handle**
10°C (50°F)	1.5 hours	3 hours
20°C (68°F)	1 hour	2 hours
30°C (86°F)	45 minutes	1.5 hours
40°C (104°F)	30 minutes	1 hour

Note: Adequate ventilation must be maintained during application and curing

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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

- EXPLANATION TO PRODUCT DATA SHEETS — INFORMATION SHEET — 1411

SIGMATHERM™ 350

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.