

# PPG HI-TEMP™ 1000 V (AMERCOAT® 873)

## DESCRIPTION

One-component, heat-resistant silicone topcoat for use in an elevated temperature coating system

## PRINCIPAL CHARACTERISTICS

- Heat-resistant topcoat with highly engineered silicone resin; able to withstand severe thermal cycling to 650°C (1200°F)
- Superior color stability to 650°C (1200°F) for black and aluminum – other colors to 538°C (1000°F)
- Air dries rapidly
- Excellent spray application properties
- User-friendly system with excellent brush and roller application characteristics
- Excellent weathering and corrosion resistance when applied over properly primed surfaces
- No softening in thermal cyclic service
- When used as a sealer for thermal spray aluminum (TSA), PPG HI-TEMP 1000 V – 300 white must be applied

Note: Use PPG HI-TEMP 1000 VS for topcoating PPG HI-TEMP 1027 primer

## COLOR AND GLOSS LEVEL

- Standard and custom colors, including aluminum
- Flat

## BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.3 kg/l (11.0 lb/US gal)
Volume solids	34 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 302.0 g/kg max. 420.0 g/l (approx. 3.5 lb/US gal)
Temperature resistance	To 650°C (1200°F)
Color stability standard and custom colors	To 538°C (1000°F)
Color stability black and aluminum	To 650°C (1200°F)
Recommended dry film thickness	38 - 50 µm (1.5 - 2.0 mils) per coat
Theoretical spreading rate	8.9 m <sup>2</sup> /l for 38 µm (364 ft <sup>2</sup> /US gal for 1.5 mils)
Dry to touch	30 minutes
Dry to handle	24 hours
Shelf life	At least 24 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Curing time



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### RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

#### New or corroded surfaces

- For corrosion resistant service, use of an approved corrosion resistant primer under the PPG HI-TEMP 1000 V topcoat is necessary. Approved corrosion-resistant primers include the following: DIMETCOTE 9 / SIGMAZINC 9, PPG HI-TEMP 1050 ZN, other primers approved by PPG
- Prepare the surface and apply the primer in accordance with the product data sheet for the approved primer. Allow appropriate drying time. Apply one coat of PPG HI-TEMP 1000 V at 38 to 50 µm (1.5 to 2.0 mils) DFT.
- For cosmetic service only, an approved corrosion resistant primer is recommended but not necessary. Abrasive blast clean to SSPC-SP 10 "Near White Blast" (ISO-Sa 2½) with profile of 25 to 38 µm (1.0 to 1.5 mils) or pressure wash to an equivalent of an SSPC-SP 10 (ISO Sa-2½) condition. Surfaces to be coated must be dry and free of salts, weld splatter, oil, dirt, grease, and all other contaminants. Round off all rough welds and sharp edges. Apply two coats of PPG HI-TEMP 1000 V at 38 to 50 µm (1.5 to 2.0 mils) DFT per coat for a total of 75 to 100 µm (3.0 to 4.0 mils) DFT.

#### Previously painted surfaces in good condition

- If old coating is intact and there is no evidence of cracking, fracturing, and/or delamination, pressure wash surface to remove all salts, oil, grease, and contaminants and apply one coat of PPG HI-TEMP 1000 V at 38 to 50 µm (1.5 to 2.0 mils) DFT.

Note: Prior to application of the PPG HI-TEMP 1000 V over other coatings, prepare a small test patch area and test for adhesion

#### Substrate temperature

- Substrate temperature during application should be between 10°C (50°F) and 49°C (120°F)
- Substrate temperature during application should be at least 3°C (5°F) above dew point

### SYSTEM SPECIFICATION

#### Uninsulated steel

- Approved primer (refer to primer PRODUCT DATA SHEET for DFT)
- PPG HI-TEMP 1000 V: 38 to 50 µm (1.5 to 2.0 mils) DFT

Note: Do not exceed recommended dry film thickness

#### Thermal spray aluminum

- PPG HI-TEMP 1000 V-300 white: 75 to 100 µm (3.0 to 4.0 mils) DFT as a sealer

### INSTRUCTIONS FOR USE

- Use mechanical agitation for mixing. Mix materials until uniform in consistency.
- Thinning is normally not required. If a condition warrants thinning, only PPG thinners should be used and in accordance with applicable regulations.

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### Air spray

#### Recommended thinner

- THINNER 21-06 (PPG HI-TEMP THINNER 11/AMERCOAT 65)
- THINNER 91-10 or PPG HI-TEMP THINNER 10 (VOC compliant)

#### Volume of thinner

0 - 5%, depending on required thickness and application conditions

#### Nozzle orifice

1.8 – 2.2 mm (approx. 0.070 – 0.087 in)

#### Nozzle pressure

0.4 - 0.6 MPa (approx. 4 - 6 bar; 58 - 87 p.s.i.)

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### Airless spray

#### Recommended thinner

- THINNER 21-06 (PPG HI-TEMP THINNER 11/AMERCOAT 65)
- THINNER 91-10 or PPG HI-TEMP THINNER 10 (VOC compliant)

#### Volume of thinner

0 - 5%, depending on required thickness and application conditions

#### Nozzle orifice

Approx. 0.43 – 0.53 mm (0.017 – 0.021 in)

#### Nozzle pressure

20.7 MPa (approx. 207 bar; 3003 p.s.i.)

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### Brush/roller

#### Recommended thinner

- No extra thinner is necessary
- THINNER 21-06 (PPG HI-TEMP THINNER 11/AMERCOAT 65)
- THINNER 91-10 or PPG HI-TEMP THINNER 10 (VOC compliant)

#### Volume of thinner

Up to 5% THINNER can be added if desired

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### Cleaning solvent

- THINNER 21-06 (PPG HI-TEMP THINNER 11/AMERCOAT 65)
  - THINNER 91-10 or PPG HI-TEMP THINNER 10 (VOC compliant)
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### ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
38 µm (1.5 mils)	8.9 m <sup>2</sup> /l (363 ft <sup>2</sup> /US gal)
50 µm (2.0 mils)	6.8 m <sup>2</sup> /l (273 ft <sup>2</sup> /US gal)

Curing time for DFT up to 50 µm (2.0 mils)			
Substrate temperature	Dry to touch	Dry to overcoat	Dry to handle
10°C (50°F)	2 hours	8 hours	48 hours
20°C (68°F)	30 minutes	6 hours	24 hours
32°C (90°F)	20 minutes	4 hours	24 hours
49°C (120°F)	15 minutes	2 hours	12 hours

Note: When shipping and handling equipment coated with PPG HI-TEMP 1000 V follow industry standard procedures for thin film coatings. Avoid mechanical damage and abrasion

### SAFETY PRECAUTIONS

- The product is for use only by professional applicators in accordance with information in this product data sheet and the applicable material safety data sheet (MSDS). Refer to the appropriate MSDS before using this material. All use and application of this product should be performed in compliance with all relative federal, state and local, health, safety and environmental regulations or in compliance with all pertinent local, regional and national regulations as well as good safety practices for painting, and in conformance with recommendations in SSPC PA 1, "Shop, Field and Maintenance Painting of Steel."

### 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

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|--------------------------------------|-------------------|------|
| • CONVERSION TABLES                  | INFORMATION SHEET | 1410 |
| • EXPLANATION TO PRODUCT DATA SHEETS | INFORMATION SHEET | 1411 |

### 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.



**PPG Protective & Marine Coatings**

Bringing innovation to the surface.™

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