

# HI-TEMP COATINGS TECHNOLOGY

## HI-TEMP 1000V SERIES

- Standard & Custom Colors to 1000°F
- Ambient Temperature Cure
- Thermal Shock Resistant to 1200°F
- VOC 3.5 lb./gal.

### Product Description

Hi-Temp 1000V Series is formulated with 100% silicone resin enabling it to withstand severe thermal cycling to 1200°F (649°C). It has superior color stability to 1000°F (538°C) and is available in standard and custom colors. 1000V Series dries rapidly, is an ambient temperature cure system and does not require a heat cure. It has a VOC content of 3.5 lb./gal. The 1000V Series has excellent weathering and corrosion resistance when applied to properly primed surfaces.

\*Black and aluminum pigmented coatings are color stable to 1200°F (649°C).

### Characteristics

- Color stable to 1000°F (538°C)
- Thermal shock resistant to 1200°F (649°C)
- Rapid air dry system
- VOC of 3.5 lb./gal.

### Uses

- Power Plants
- Refineries
- Chemical Facilities
- Offshore/Marine
- Cement Plants
- Pulp & Paper

### Specification Data

Type	100% Silicone
Dry Temperature Resistance	
Continuous	1200°F (649°C)
Peak	1200°F (649°C)
Color Stability*	1000°F (538°C)
Colors	Standard & Custom Colors
Finish	Flat
Components	One
Dry Time @ 50% R.H., 70°F	
To Touch	30 Minutes
To Ship	24 Hours
Cure	N/A
Metal Temperature	
During Application	50°F-120°F (10°C-49°C)

Thinner	Hi-Temp #10
Volume Solids	34%
Theoretical Coverage	
@ 1mil. d.f.t.	547 sq.ft./gal.
@ 25 microns	13.7 sq.m./l.
VOC Content	3.5 lb./gal. (420 g/l.)
Weight per gallon	
Hi-Temp 1000V	11.4 lb. (5.2 kg.)
Storage Temperature	40°-100°F (4°-38°C)
Shelf Life	1 year
*Black and aluminum pigmented coatings are color stable to 1200°F (649°C)	

### Surface Preparation

#### 1) New Surfaces: Steel

Surfaces to be coated must be dry and free of all chlorides, weld splatter, oil, dirt, grease, and all other contaminants. Round off all rough welds and sharp edges. Abrasive blast to a SSPC-SP 10 "Near White Blast". Blast profile should be 1.0-1.5 mils. (25-38 microns) in depth.

#### 2) Previously Painted Surfaces: Poor Condition

Old coating shows evidence of cracking, fracturing, delamination, and/or corrosion. Surface preparation guidelines for new steel should be followed.

#### 3) Previously Painted Surfaces: Good Condition

Old coating is intact and there is no evidence of cracking, fracturing, and/or delamination. Pressure wash surface to remove all chlorides, oil, grease, and contaminants and apply one coat of 1000V Series at 1.5-2.0 mils. d.f.t. Prior to a full topcoat application, apply 1000V Series to a small area and test for adhesion.

#### 4) Previously Painted Surfaces: Good Condition, some spotted corrosion

Old coating is intact, there is no evidence of cracking, fracturing, and/or delamination. However, there are small areas of corrosion which amount to less than 10% of the area to be coated. Spot prepare the areas of corrosion by an SSPC-SP 6 "Commercial Blast". Blast profile should be 1.0-1.5 mils. in depth. Apply one prime coat of Hi-Temp 1050 ZN to these areas. Once these areas are primed and dry, power wash the entire structure, removing all oil, grease, and other contaminants. Apply one coat of 1000V Series at 1.5-2.0 mils. d.f.t. over the entire unit. Prior to the full topcoat application, apply the 1000V Series to a small area and test for adhesion.

**Application Instructions**

Surface temperature must be a minimum of 5°F (3°C) above the dew point. Do not apply to steel temperatures below 50°F (10°C).

**Systems:** Uninsulated Carbon Steel\*

<i>Primers</i>	<i>DFT</i>
Hi-Temp 1050 ZN Primer	1.5-2.0 mils. (37-50 microns)
<i>Topcoat</i>	
Hi-Temp 1000V Series	1.5-2.0 mils. (37-50 microns)
Total Dry Film Thickness	3.0-4.0 mils. (75-100 microns)

\* Do not exceed recommended dry film thickness

**Dry Time @ 70° (21°C)**

Hi-Temp 1000V Series will air dry within 30 minutes, and can ship in the air dry state in 24 hours. When shipping and handling equipment coated with 1000V, follow procedures for thin film coatings. Avoid mechanical abrasion.

**Equipment**

Conventional or airless spray is recommended. For conventional spray use a DeVilbiss MBC-510 (or equal), gun with an "E" fluid tip and 704 air cap (or equal). For airless spray use a Graco 205-591, 208-663 (or equal) gun with a fluid tip of 163-610 or 163-315 and a Graco Bulldog Pump at 30:1.

Adjust pressure as needed. Hold gun 10"-12" from the surface at right angles. Lap each pass 50%. When brushing and rolling contact HTC technical service for specific recommendations.

**Mixing**

Use mechanical agitation for mixing. Mix materials until uniform in consistency.

**Thinning**

Thinning is not normally needed. If a condition warrants thinning, thin only with Hi-Temp #10 Thinner. Thin according to local air regulations.

**Clean-up**

Use Hi-Temp #10 Thinner.

**Precautions**

This product is for use only by professional applicators in accordance with information in this bulletin and the Material Safety Data Sheet (MSDS). Refer to this product's 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 & Environmental regulations.

**Warranty**

HTC warrants that its products are free from defects in material and workmanship. HTC's sole obligation and buyer's exclusive remedy shall be limited to replacement of products not conforming to this warranty. Any claim for replacement product must be made within one year from the delivery date.

HTC makes no other warranties, expressed or implied, such as warranties of merchantability or fitness for a particular purpose. HTC products are intended for Buyers with the knowledge and skills to evaluate the suitability of HTC's products for Buyer's intended use. In no event shall HTC be liable for consequential or incidental damages.