

HI-TEMP COATINGS TECHNOLOGY

HI-TEMP 500VS SERIES

- Topcoat for Hi-Temp 1027
- Standard & Custom Colors to 500°F
- Ambient Temperature Cure
- VOC 3.5 lb./gal.

Product Description

Hi-Temp 500VS Series has a VOC of 3.5 lb./gal. It is a silicone acrylic system formulated with a high percentage of silicone resin and a thermally stable acrylic resin. This combination allows the 500VS Series to have superior color stability to 500°F (260°C)* as compared to most generic silicone acrylic topcoats, which tend to discolor at elevated temperatures. It is available in both standard and custom colors. 500VS Series air dries rapidly, is an ambient temperature cure coating system and does not require heat cure. It is able to withstand severe thermal cycling up to 600°F (315°C). It is a user friendly system with superior brush and roller characteristics. Hi-Temp 500VS Series has excellent weathering and corrosion resistance when applied over properly primed surfaces.

Hi-Temp 500VS is specifically formulated as an ambient topcoat for Hi-Temp 1027 Primer.

*Black and aluminum pigmented coatings are color stable to 600°F (315°C)

Characteristics

- Color stable to 500°F (260°C)
- Thermal shock resistant to 600°F (315°C)
- VOC of 3.5 lb./gal.
- User friendly
- Ambient temperature cure
- Topcoat for Hi-Temp 1027 Primer

Uses

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

Specification Data

Type	Silicone Acrylic
Dry Temperature Resistance	
Continuous	600°F (315°C)
Peak	600°F (315°C)

Color Stability*	500°F (260°C)
Colors	Standard & Custom Colors
Finish	Semi-Gloss
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	44%
(Aluminum)	(33%)
Theoretical Coverage	
@ 1 mil.D.F.T.	708 sq.ft./gal.
@ 25 microns	17.7 sq.m/l.
VOC Content	3.5 lb./gal. (420 g./l.)
Weight per gallon	
Hi-Temp 500V	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 600°F (315°C)

Surface Preparation

1) New Surfaces: Steel

Coated surfaces must be dry and free of weld splatter, oil, dirt, grease, and all other contaminants. Round off all rough welds and sharp edges. Abrasive blast to a SSPC-SP 6 "Commercial 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) Rusty Surfaces

Surfaces with much corrosion present. Guideline for new steel should try to be followed. If abrasive blast is not possible, prepare the surface by an SSPC-SP 11 "Power

Tool". If this is unattainable, prepare the surface by an SSPC-SP 2 "Hand Tool Cleaning". *Any existing coating must be removed. Apply one prime coat of Hi-Temp 1027 DTR. Application over tightly adhering rust is acceptable. Topcoat with one coat of Hi-Temp 500VS. *Performance of system relative to surface preparation accomplished.

4) *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 oil, grease, and contaminants and apply one coat of 500VS Series at 2.0-2.5 mils. dft. Prior to a full topcoat application, apply 500VS Series to a small area and test for adhesion.

5) *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. If abrasive blasting is not permitted, prepare the area by a power tool cleaning accordance to an SSPC-SP 11. Apply one prime coat of Hi-Temp 1027 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 500VS Series at 2.0-2.5 mils. dft over the entire unit. Prior to the full topcoat application, apply the 500VS 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 Steel*

Primers

Hi-Temp 1027 Primer 5.0-6.0 mils.
(125-150 microns)

Topcoat

Hi-Temp 500VS Series Topcoat 2.0-2.5 mils.
(50-63 microns)

Total Dry Film Thickness 7.0-8.5 mils.
(175-212 microns)

* Do not exceed recommended dry film thickness

Equipment

Conventional or airless spray is recommended. For conventional spray use a DeVilbiss MBC-510, (or equal), gun with an AV115-FZ (.0425") fluid tip and a 704 air cap. For airless spray use a Graco 205-591, 208-663, (or equal), gun with a fluid tip of 163-614, 163-616 and Graco Bulldog Pump 30:1.

Adjust pressure as needed. Hold gun 10"-12" from the surface at right angles. Lap each pass 50%. When brushing and rolling, use only quality brushes and rollers.

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.