



VTEMP 500

DESCRIPTION

- ❖ Service Temperature minus 55°C to 593°C [650°C Peak]
 - ❖ Meets CS-3, CS-4, CS-6, SS-2, SS-3, SS-4 and SS-5 of NACE SPO 198-2010 for corrosion under insulation
 - ❖ Can be applied on CS and SS
 - ❖ Prevents Stress Corrosion Cracking in SS
 - ❖ Resistant to thermal cyclic shocks
 - ❖ Can be applied directly to hot surfaces
 - ❖ Surface Tolerant
 - ❖ For hot as well as cold services
 - ❖ Easy to repair
 - ❖ UV stable
 - ❖ Viscosity – 85-95 Ku
- **VTEMP-500** is a **single component** high build, high performance coating based on **inorganic polysiloxane hybrid** specifically designed for protection of the exterior and under insulation surfaces of any manufacturing facility exposed to a combination of high temperatures and thermal cycling.
 - **VTEMP-500** is self priming, air drying and dries to form a tough durable coating
 - **VTEMP 500** is dark grey in color and can be top coated with itself or a full range of VTEMP series color top coats for either CUI or exposed service.
 - **VTEMP 500** can be applied directly to hot surfaces having a surface temperature up to 200°C, thus reducing downtimes and eliminating the need for shutdown
 - **VTEMP 500** provides a UV stable, chalking-free film. Some minor color differences may occur while in operation, however this does not affect the integrity of the coating.

PRODUCT DATA

CUI wet/dry/5% NaCl 200 hours	Pass
Salt Fog ASTM B-117	3000 hours
ASTM -2402 Mass Loss	<10%
Impact ASTM G-14 (Direct)	>13 Kgs
Adhesion Test ASTM 3359-09	4A to 5A

SURFACE PREPARATION

CARBON STEEL

The steel surfaces to be coated must be dry, clean and free from dust, have a good key and be free from all matter acting as release agents (e.g. oil, grease, old paint etc.). In order to obtain the necessary conditions, suitable substrate preparation methods such as blasting, power tooling, hydro jetting, etc must be used.

Surface to be coated with **VTEMP 500** should be dry and free of all weld splatter, oil, dirt, grease, and all other non-visible contaminants, especially salts and other chemical residue. Round off all rough welds and sharp edges. Dry abrasive blast to SSPCSP 6, “Commercial Blast, with 38 to 63 micron profile. Wet abrasive blast or UHP Wash with grit injection to achieve an equivalent of SSPC-SP 6.

For new or aged exposed surfaces, if abrasive blast preparation is not possible, detergent wash, freshwater rinse and then se SSPC-SP 11, “Power –Tool Cleaning to Bare Metal”. As with all coatings, performance and service life of **VTEMP 500** is relative to the quality of surface preparation accomplished.

Higher the cleanliness, the better would be the performance of the coating.

Vasu Centre, Military Road, Marol, Andheri (E), Mumbai – 400 059. Tel: [+91-22-61449500](tel:+91-22-61449500) Fax: [+91-22-29209624](tel:+91-22-29209624), 66959101
Email: info@vasuchemicals.com URL: www.vasuchemicals.com

Manufacturer's warranty is restricted to the claims made herein. No responsibility is implied to consequences of damage intrinsic to the system, that manifests later or during treatment. Information given herein subject to modification in alignment with further product improvement. Please refer to warranty clause printed on back side



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STAINLESS STEEL

Solvent clean the surface and sweep blast using garnet or use HPWC or steam cleaning. Ensure removal of all contaminants. Do not use chlorinated solvents. Use SSPC-SP 1 “Solvent cleaning” method. An anchor profile is not mandatory for adhesion of **VTEMP 500** on stainless steel surfaces. Small areas may be cleaned with a chloride free solvent. Steam cleaning with alkaline solution can also be used followed by fresh water cleaning

MIXING, THINNING, AND CLEANUP:

VTEMP 500 is a Single component product with **54 ± 2% volume solids**. Mix until the material becomes free flowing and smooth without any lumps; use mechanical agitation for mixing, and as needed during application. Be sure any settled solids are incorporated during mixing. Thinning is not typically needed. Thin only in accordance with all relevant requirements.

APPLICATION

VTEMP 500 can be applied on substrate with temperatures running from 10°C up to 200°C. Apply thin even passes, overlapping each pass 50%. Hold spray gun 10” to 12” from surface at right angles.

APPLICATION EQUIPMENT

Product can be applied using a conventional pot gun or an airless spray.

For conventional spray, use an agitated pot with dual regulators and gauges, with pot air pressure of 30 to 40psi.

For airless spray, at pressures 1500 to 2500 psi use Tip Size .019” to .021”.

For small area or stripe coating using wood handled china bristle brush or roller.

APPLICATION AT AMBIENT TEMPERATURES < 65 °C

Ensure that the temperature of the substrate is at least 3 °C above the dew point to avoid condensation. Ambient temperature should be > 10°C. Humidity levels as high as 85% can be tolerated. Thin, flush, and clean up with Thinner # 11

APPLICATION TO HOT SURFACES:

VTEMP 500 should be applied in thin mist coating in multiple passes while applying on substrate to avoid blistering and solvent entrapment. If blisters are observed immediately brush out the blisters before they set, using bristle brush.

For application temperatures upto 200°C, thin, flush and clean up only with Thinner # 5. In case of blistering, brush out he blisters immediately and recoat

COVERAGE

	Minimum	Maximum
Film thickness, dry (µm)	125	150
Film thickness, wet (µm)	260	310
Theoretical spreading rate (m ² /l)	3.9	3.2

APPROXIMATE DRYING SCHEDULE

	10°C	40°C	150°C
Touch Dry	8-10 hours	2 hours	NA**
To recoat	24 hours	4 hours	20min
To ship	24 hours	24 hours	-

** surface dry temperature. Touch with adequate protection

Drying times will alter with difference in environmental conditions like RH



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TYPICAL PAINT SYSTEM

On CS and SS (minimum DFT 125 µm)

FOR CUI	2 - 3 coats of 125 - 150 µm DFT each.
FOR ATMOSPHERIC EXPOSURE – NON INSULATED SERVICE	1 coat of 125 - 150 µm DFT followed with a VTEMP color topcoat or with second coat of VTEMP 500 at 125-150 µm
FOR SERVICES IN RANGE -57 TO 593°C	2 coats of 125 - 150 µm DFT each

STORAGE

The product must be stored dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed. Prevent from moisture contamination. Storage temperatures 5°C to 40°C.

PACKING - 1 gallon cans; 3.785 Ltrs

SHELF LIFE

2 years. If shelf life exceeds, the product has to be recertified before being used.

HANDLING

Handle with care. Stir well before use.

HEALTH AND SAFETY

- Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use appropriate respirators, do not spray in enclosed areas.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions, if processed at elevated temperatures.
- In case of accidental contact with Product, Immediately wash with soap and water.
- This product is intended for industrial use by properly trained professional applicators only.

DISCLAIMER

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the **VASCOAT/VTEMP** products of **VASU CHEMICALS**, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable.