VTEMP 600

DESCRIPTION

- **Service Temperature minus 180°C to 650°C [750ºC Peak]**
- **Cryogenic Service minus 185 to 530 ºC**
- **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**
- **Resistant to thermal cyclic shocks**
- **Can be applied directly to hot surfaces Surface Tolerant**
- **For hot as well as cryogenic services**
- **Maximum overcoating intervals**
- **Easy to repair**
- **UV resistant**

- **VTEMP 600** is a product based on **inert multipolymeric matrix.** It a **single component** high build product specifically designed to prevent corrosion under insulation (CUI) of carbon steel and chloride induced stress corrosion cracking (CISCC) on SS and austenitic steel.

- **VTEMP 600** Forms a physical barrier between the substrate and the surrounding atmosphere.

- **VTEMP 600** can be top coated with a full range of VTEMP series color top coats and VTEMP THERMAL INTERFACE COATINGS and INSULATING COATINGS.

- **VTEMP 600** can be applied directly to hot surfaces having a surface temperature up to 260ºC, thus reducing downtimes and eliminating the need for shutdown

- **VTEMP 600** is highly resistant to thermal cyclic shocks in dry or wet/dry service.
- **VTEMP 600** can be applied on surface complying to St 2 and above. Better the surface condition, better the results

- **VTEMP 600** provides a UV stable, chalking-free film

- **VTEMP 600** has no maximum recoat interval, regardless of operating temperature, as long as the surface to be recoated is clean and free of all contaminants.

The coating is soft and flexible in nature, hence pull of adhesion testing is not considered relevant.

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.

For Shop primed steel/ bare surfaces/ coated surfaces minimum standard of cleanliness required is St2. Higher the cleanliness, better would be the performance of the coating.

Surface preparation can be done either by abrasive blasting, power tooling or water jetting/water cleaning (NACE No.5/SSPC-SP 12)

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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. An anchor profile is not mandatory for adhesion of **VTEMP 600** on stainless steel surfaces. Small areas may be cleaned with a chloride free solvent such as MEK, (Methyl Ethyl Ketone).

MIXING, THINNING, AND CLEANUP:

VTEMP 600 is a heavy bodied Single component product with **49 ± 2% volume solid**. Mix the product in the container itself at speed of approximately 400 RPM 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. Thin only in accordance with applicable regulations. Agitate as needed during application.

APPLICATION EQUIPMENT

Product can be applied using a conventional pot gun or an airless spray. Apply thin even passes, overlapping each pass 50%. Hold spray gun 10" to 12" from surface at right angles.

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 3500 psi use Tip Size .015" to .021".

For small area or stripe coating use a brush or roller

APPLICATION

VTEMP 600 can be applied on substrate with temperatures running from 10ºC upto 250ºC

APPLICATION AT AMBIENT TEMPERATURES < 65 ºC

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. Flush with Thinner # 11 Touch Dry time @ 23 ºC is 2 hours. Top coat can be applied after 5-6 hours

APPLICATION TO HOT SURFACES:

VTEMP 600 should be applied in thin 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.

Flush with Thinner # 6. For application temperatures beyond 200ºC, request for special thinners

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

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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
FOR INSULATION	1 coat of 125 - 150 µm DFT followed by VTEMP TIC 177
FOR ATMOSPHERIC EXPOSURE – NON INSULATED SERVICE	1 coats of 125 - 150 µm DFT followed by VTEMP color series if required
FOR CRYOGENIC SERVICE < 200°C	2 coats of 125 - 150 µm DFT
FOR CRYOGENIC SERVICE with wide temperature range **minus 185 to 525 ºC**	1 X 150 µm DFT maximum

SHELF LIFE

24 MONTHS. In case shelf life exceeds, the product has to be retested before being put use

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.

HANDLING

Handle with care. Stir well before use.

PACKING - 1 gallon cans; 3.785 Ltrs

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 fresh air respirators or fresh air hoods 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.