



HOT PIPE COATING®-HT

TECHNICAL SHEET

DESCRIPTION

HPC®-HT is a two-part hybrid silicone/solvent resin. (Part B is flammable and Part A is water-based) The coating is using specific ceramic compound loads for application directly over surfaces minimum temps of 250°C (482°F) and up to 600°C (1112°F). It was designed to block and hold the interior temperature on the surface and reduce heat transfer loss to ambient.

After Part A and Part B are blended together, HPC®-HT Coating offers a 'green', nonflammable, non-toxic formula for high-heat surface applications. HPC®-HT is easily applied, and can be applied direct to metal, concrete and other high-temperature surfaces.

HPC® HT-PRIMER is applied first for best adhesion.

If the surface temperature is below 200°C, the HPC®-HT resin will not dry and will remain soft.

TYPICAL USES

- As an insulation system over hot pipes, tanks, and valves with surface temperatures higher than 250°C to save energy.
- To block heat migration from hot tanks, lines, and valves.
- As a system to block conductive and radiant heat.
- Easily applied when a hot system cannot be shut down to give personal protection.

APPLICATION METHOD

HOT PIPE COATING®-HT should only be used for applications higher than 485°F (250°C). If the surface temp is below 250 °C, the HPC-HT resin will not dry, and will remain soft. It will not build up.

HPC®-HT Coating is a 2K-component product. Do NOT expose Part A to open flame as solvents are used to allow silicones to blend faster. Mix A into B for 3-5 minutes!

HPC®-HT PRIMER is applied first for best adhesion.

HPC®-HT SYSTEM can be used for applications over 482°F (250°C) up to 1115°F (600°C) but only according to the manufacturer's instructions. As thickness is applied, finish with standard HPC till desired temperature is achieved. Eventually finish with a top coat.

The application is applied using a texture sprayer. For specific instructions on surface preparation, mixing and application, please refer to the HPC-HT Coating Application Instruction Sheet.

If HPC®-HT is applied over hot exterior surfaces, and can be over-coated, SUPER THERM®, RUST GRIP®, ENDUROOF or ENAMO GRIP can be used according to what is needed.

HPC®-HT must be completely dry before applying top coat.



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TECHNICAL SHEET

NOTE: If there is thermal movement on pipes or unit, then a flexible topcoat has to be used in combination with Mesh membrane. EnduTextile Mesh Membrane System or high-temp mesh can be used on hot pipes when continuous cycles cause movement, and where continuous impact caused by workers handling the hot pipe is unavoidable. (contact SPE).

PRIME FIRST: Use HPC®-HT Primer over the hot surface after cleaning off hot pipe surface from debris. Spray on a thin coat (3mm/120mils) to seal the surface and give an adhesive layer for the insulation coating (HPC®-HT). See HPC®-HT Primer tech sheet.

NOTE: Overspray with a hopper gun can be 15-20% loss and must be factored in. Using a TexSpray 2000 or Graco RTX-1500, overspray will be less, 10-15%.

NOTE: Example: 600°C pipe surface needs up to 37-60 mm of HPC®-HT. Submit details to SPE for calculations of thickness and reduced heat loss.

NOTE: HPC®-HT calculated thickness must be applied in multi-coats and all applied until thickness is achieved. Start and finish a selected area is best practice.

NOTE: Initial primer coat and first coat of HPC®-HT will have a lot of steam coming off. After initial coat, remaining coats will have very little-to-no steam.

NOTE: Apply only over dry surfaces (inside or out) and when sun is shining (for external application). Do not apply on a full cloudy day with a chance for rain, or within 5° of dew point.

NOTE: A respirator should be worn while mixing and applying the HPC®-HT Coating.

PHYSICAL DATA

- Solids: By Weight: 61.1% / By Volume: 84%
- Dry Time: If between 400-650°F (200-345°C); 20 minutes per coat, or until steaming action has finished. Pot life = 6 hours.
- Lead and chromate free
- Water-borne
- Cures by evaporation on hot surfaces
- Weight: 6.86 lbs. per gallon (819 gr/lit)
- Vehicle Type: Silicone hybrid blend
- Shelf Life: Up to 2 years if unopened under appropriate storage conditions.
- VOC Level: 200 grams/liter ; 1.67 lbs/gal.
- pH: 9.0 -11.0
- Maximum Surface Temperature when applying: 1115°F (600°C)
- Minimum Surface Temperature when applying: 390°F (250°C)
- Maximum Surface Temperature after curing: 1115°F (600°C)



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TECHNICAL SHEET

MINIMUM SPREAD RATES (mil thickness)

- 2.7 sq. ft./gal = 500 mils dry film thickness (0.23 m²/gal = 12.5 mm DFT)
- 1.3 sq. ft./gal = 1000 mils dry film thickness (0.12 m²/gal = 25 mm DFT)
- 0.9 sq. ft./gal = 1500 mils dry film thickness (0.09 m²/gal = 37 mm DFT)

SAFETY PRECAUTIONS

A respirator mask should be worn while mixing and applying the HPC®-HT Coating.

Do not take internally. Avoid contact with eyes. If solution does come in contact with eyes, flush immediately with water and contact a physician for medical advice. Avoid prolonged contact with skin or breathing of spray mist.

CAUTION: Do not expose Part B to open flame as solvent is used to allow silicones to blend faster. After Parts A and B are blended, product is non-flammable for use in spraying direct to hot surfaces reaching 650°C.

KEEP OUT OF REACH OF CHILDREN.

***LIMITATION OF LIABILITY:** All recommendations or suggestions relating to the use of the products, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use. SPE has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPE does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet. The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.*

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