



## HPC® HT COATING

### Technical Data Sheet (12/7/18)

#### DESCRIPTION

HPC®-HT is a two-part hybrid silicone/solvent resin (Part A is flammable) and (Part B is water-based resins) using specific ceramic compound loads for application directly over surface 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 sprayed direct to metal, concrete and other high-temperature surfaces up to 600°C.

HT PRIMER is applied first for best adhesion.

**NOTE:** If the surface temp is below 200C, the HPC HT resin will not dry, and will remain soft. It will not build up.

#### TYPICAL USES

- As the high-temp insulation coat for surfaces greater than 250°C, over hot pipes, tanks, and valves
- To hold heat on the surface of the pipe, valve, etc.
- As a system to block conductive and convective heat transfer
- Applied when a hot system cannot be shut down.

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

#### APPLICATION METHOD

**CAUTION:** Do not expose Part A to open flame as solvent 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.

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®, ENAMO GRIP or HPC system top coat can be used according to what is needed.

**NOTE:** If there is thermal movement on pipes or unit, then a flexible topcoat must be used as SPLM or HPC system top coat (see manufacturer).

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

HPC® Multi-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. **PRIME FIRST:** Use 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 HT Primer tech sheet.

#### MINIMUM SPREAD RATES (mil thickness)

2.7 sq.ft./gal. = 500 mils dry (0.23 sq.mtr. = 12.5mm)

1.3 sq.ft./gal. = 1000 mils (0.12 q.mtr. = 25mm)

0.9 sq.ft./gallon = 1500 mils dry (0.09sq.m. = 37mm)

#### NOTES:

1. Overspray with a hopper gun can be 15-20% loss and must be factored in. Using a TexSpray 2000, overspray will be less, 10-15%.
2. Example: 600°C pipe surface needs between 37-60mm of HT. Submit details to SPI for calculations of thickness and reduced heat loss.
3. 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.
4. 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.
5. Make sure that all valves, parts and release valves are rated for the actual interior temperature that will increase once it is coated.
6. 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.

#### PHYSICAL DATA

- ◆ Solids: By Weight: 61.1% / By Volume: 84%
- ◆ Dry Time: If between 400-650°F (204C-345C); 20 minutes per coat, or until steaming action has finished; over 750°F (5 minutes between coats).
- ◆ Lead and chromate free
- ◆ Water-borne
- ◆ Cures by evaporation on hot surfaces
- ◆ Weight: 6.86 lbs. per gallon (3.1 kilos)
- ◆ Vehicle Type: Silicone hybrid blend
- ◆ Shelf Life: Up to 2 years if unopened under appropriate storage conditions (See SDS)
- ◆ Pot Life: 6 hours, or the formula will thicken too much to spray
- ◆ 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); less than 250°C, use regular HPC®
- ◆ Maximum Surface Temperature "after curing": 1115°F (600°C)

#### IMPORTANT

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. **KEEP OUT OF REACH OF CHILDREN.**

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