SPI COATINGS

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INSULATION AND CORROSION SPECIALISTS

HPC® HT Coating

Technical Data Sheet (11/17/20)

DESCRIPTION

HPC®-HT is a two-part (9 to 1) hybrid silicone non-flammable resin (Part B is cure). Part A is water-based resins using specific ceramic compound loads for application directly over surface temps of 232°C (450°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.

Mix Part A and Part B 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 and other high-temperature surfaces up to 600°C. Sold only in 5-gallon pail kits.

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

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 loss from surface to ambient
- 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

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®, or SP SEAL COAT HT.

NOTE: If there is thermal movement on pipes or unit, then a flexible topcoat must be used as SP SEAL COAT HT.

MINIMUM SPREAD RATES (mil thickness)

2.5 sq.ft./gal. = 500 mils dry (0.23 sq.mtr. = 12.5mm)
1.3 sq.ft./gal. = 1000 mils (0.12 q.mtr. = 25mm)
0.8 sq.ft./gallon = 1500 mils dry (0.08sq.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. According to surface temperature, first coat is applied at 0.5mm to allow steam off without causing bubbles. Apply additional coats until you achieve 6mm thickness without bubbles. You can apply 4-6mm per coat.
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: 63.5% / By Volume: 80.0%
- 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: A+B= 7.32 lbs. per gallon (3.32 kilos)
- Vehicle Type: Silicone hybrid blend
- Shelf Life: 1 year, if unopened and maintained 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: 11.0-11.5
- 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 comes in direct 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.**