



## HPC® HT COATING

### Technical Data Sheet (10/10/17)

#### DESCRIPTION

HPC®-HT is a three-part (A+B+C) hybrid acrylic/silicone resin, water-based coating using specific ceramic compound loads for application directly over surfaces 200°C (392°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.

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.

#### TYPICAL USES

- As the high-temp insulation coat for surfaces greater than 200°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

HPC®-HT Coating is a three-component product. As thickness is applied and finished with standard HPC® or top coat.

HPC®-HT SYSTEM can be used for applications over 392°F (200°C) up to 1112°F (600°C) but only according to the manufacturer's instructions.

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 needs to be over-coated, SUPER THERM®, RUST GRIP®, or ENAMO GRIP can be used according to what is needed.

**NOTE:** If there is thermal movement on pipes or unit, then a flexible topcoat has to be used (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. Apply Multi-Mesh Membrane between layers of RUST GRIP or MOIST METAL GRIP for exterior toughness or underground uses for buried pipe. Multi-Mesh Membrane combined with RUST GRIP or MOIST METAL GRIP forms a hard cast for exterior strength and moisture barrier to protect the HPC®-HT system. A final top-coat of SUPER THERM or SP SEAL COAT should be added for impact resistance and movement from elongation during heat cycles to avoid stress cracks.

#### 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: 450°C pipe surface needs up to 50mm of HT before finishing with regular HPC®. 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. Part A is a ceramic powder and must be mixed into Part B and C inside a closed room—no wind.

#### MINIMUM SPREAD RATES (mil thickness)

2.5 sq.ft./gal. = 500 mils dry (0.24 sq.mtr. = 12.5mm)

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

#### PHYSICAL DATA

- ◆ Solids: By Weight: 73.0% / By Volume: 82.6%
- ◆ Dry Time: If between 400-650°F.; 20 minutes per coat, or until steaming action has finished.
- ◆ Lead and chromate free
- ◆ Water-borne
- ◆ Cures by evaporation on hot surfaces
- ◆ Weight: 6.97 lbs. per gallon (3.1 kilos)
- ◆ Vehicle Type: Acrylic hybrid blend
- ◆ Shelf Life: Up to 2 years if unopened under appropriate storage conditions (See SDS)
- ◆ VOC Level: 200 grams/liter, 1.67 lbs./gal.
- ◆ pH: 9.0-11.0
- ◆ Maximum Surface Temperature when applying: 1112°F (600°C)
- ◆ Minimum Surface Temperature when applying: 390°F (200°C); less than 200°C, use regular HPC®
- ◆ Maximum Surface Temperature "after curing": 1112°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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