



**HPC®**

## Technical Data Sheet (10/11/18)

### DESCRIPTION

HPC® Coating is designed to control heat transfer on surface temperatures up to 482°F (250°C). It is water-borne and extremely lightweight in appearance. HPC® Coating uses a special acrylic resin blend with specific ceramic compounds added to provide a non-conductive block against heat transfer.

HPC® Coating offers a “Green”, non-flammable, non-toxic formula for high heat surface applications over standard steam pipe or oven wall construction. HPC® Coating is easily applied using a texture sprayer, and can be applied over metal, concrete, wood, and other substrates.

If HPC® Coating is to be applied over flat steel surfaces, see manufacturer for instructions.

### TYPICAL USES

- As an insulation system over hot pipes, tanks, and valves
- To block heat migration into cold tanks, lines, and valves
- As a system to block conductive and convective heat
- Easily applied when a hot system cannot be shut down

### APPLICATION METHOD

HPC® Coating can be used for applications ‘up to’ 482°F (250°C). It must be applied according to Manufacturer’s Application Instructions.

**NOTE:** Applications applied over 482°F (250°C) may see the resins [turn tan](#) to brown in color next to the hot surface, but the HPC will continue to work as long as the ceramics are still in place.

HPC® Coating can be applied to metal, concrete, masonry and wood.

The application is applied using a texture sprayer. For specific instructions on surface preparation, mixing and application, please refer to the SPI Application Instruction sheet for HPC® Coating.

If HPC® Coating is applied on surfaces outdoors, you **must** overcoat the HPC with Super Therm®, Rust Grip®, SP Liquid Membrane or Enamo Grip according to what is needed. It cannot be left uncoated and left exposed to weather conditions. It is light-weight to insulate, which leaves it vulnerable to weather conditions.

HPC® Coating must be completely dry before applying top coat.

HPC® Multi-Mesh Membrane System is 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, ENAMO GRIP or MOIST METAL GRIP for exterior toughness. 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 system. A final top-coat of SP LIQUID MEMBRANE should be added for impact resistance and movement from elongation during heat cycles to avoid stress cracks.

**NOTE:** For surfaces over 482°F (250°C) see [Technical Sheet for HPC-HT \(high-temp version\)](#).

### TESTS AND CERTIFICATIONS

1. ISO8302/ASTM C 177 – Thermal Conductivity (0.063 W/mK @ 86°F/30°C)
2. ISO 8302 – Thermal Conductivity
3. IMO – MSC.61(67) Smoke and Toxicity Test
4. Marine Approvals – American Bureau of Shipping;
5. USDA Approved
6. Russian field test – w/mK 0.035 avg.

### MINIMUM SPREAD RATES (mil thickness)

- 22.4 sq. ft./gal = 50 mils dry film thickness
- 11.2 sq. ft./gal = 100 mils dry film thickness
- 5.61 sq. ft./gal = 200 mils dry film thickness
- 4.5 sq. ft./gal = 250 mils dry film thickness

### PHYSICAL DATA

- ◆ Solids: By Weight: 49.0% / By Volume: 72.00%
- ◆ Dry Time: If between 200-300°F.; 10-30 minutes per coat, or until steaming action has finished.
- ◆ Water-borne
- ◆ Cures by evaporation
- ◆ Weight: 5.2 lbs. per gallon
- ◆ Vehicle Type: Acrylic Blend/Co-solvents
- ◆ Shelf Life: Up to 1 year if unopened under appropriate storage conditions (See MSDS)
- ◆ VOC Level: 25.1 grams/liter, 0.209 gal./lbs.
- ◆ pH: 8.5-9.5
- ◆ USDA Approved
- ◆ Maximum Surface Temperature when applying: 482°F (250°C)
- ◆ Minimum Surface Temperature when applying: 40°F (5°C)
- ◆ Maximum Surface Temperature after curing: 482°F (250°C)\*
- ◆ HPC Coating will not totally burn. Any initial flame will burn off the surface resin before charring and blocking the flame.
- ◆ Operating temperatures have been higher in the field. See [manufacturer for instructions](#).

**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.

### 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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