



# SPI COATINGS

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## HPC® COATING

INSULATION  
AND  
CORROSION  
SPECIALISTS

### Technical Data Sheet (08/30/19)

#### DESCRIPTION

HPC® Coating is designed to control heat transfer on surface temperatures up to 450°F degrees (232°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
- Can be applied over steel, concrete and other building material

#### APPLICATION METHOD

HPC® can be used for applications 'up to' 450°F (232°C). It must be applied according to Manufacturer's Application Instructions.

**NOTE:** Applications applied over 450°F (232°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®, ENAMO GRIP or SP SEAL COAT HT according to what is needed. It cannot be left uncoated and left exposed to weather conditions. It is lightweight to insulate, which leaves it vulnerable to weather conditions.

**NOTE:** If the HPC will be applied over metal, concrete or any surface to block heat facing the coating surface, and the surface will face water splash or weathering and withstand up to 450°F (232°C), we would use SP SEAL COAT HT for the topcoat.

HPC® Coating must be completely dry before applying topcoat.

HPC® Multi-Mesh Membrane System is used on hot pipes when continuous cycles cause out-of-norm vibration or movement, and where continuous impact caused by workers handling the hot pipe is unavoidable. Apply Multi-Mesh Membrane between layers of HPC and SP SEAL COAT HT or ENAMO GRIP for exterior toughness. Multi-Mesh Membrane combined with SP SEAL COAT HT forms a flexible cast for exterior strength and moisture barrier to protect the HPC system. MULTI-MESH does not need to be used in normal uses.

**NOTE:** SP SEAL COAT HT is for surfaces that move enough to cause the top coat to elongate.

**NOTE:** For surfaces over 450°F (232°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.
- ◆ Lead and chromate free
- ◆ Water-borne
- ◆ Cures by evaporation
- ◆ Weight: 5.2 lbs. per gallon
- ◆ Vehicle Type: Urethane / Acrylic Blend
- ◆ 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: 450°F (232°C)
- ◆ Minimum Surface Temperature when applying: 40°F (5°C)
- ◆ Maximum Surface Temperature after curing: 450°F (232°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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