



SUPERIOR PRODUCTS

INTERNATIONAL II, INC.

HPC[®] Coating

THE EXTREME TEMPERATURE INSULATION

HPC[®] Coating Insulation: A Unique Solution For Heat & Corrosion Protection On Any Surface!

Description

HPC[®] Coating is a ceramic based, one component, water-borne, non-flammable and non-toxic formula designed to insulate at higher temperatures from 150 degrees C to 350 degrees C. This unique coating can be used as a primer and as a sole coating and can be sprayed directly on any hot surface without the need of a shutdown.

Depending on the temperature, different layers can be added till desired temperature is reached. HPC[®] Coating will cure by evaporation of the water.

Typical Uses

Mainly used as insulation:

- on hot pipes or tanks.
- as an aid to worker safety to prevent risk of burn.
- to save valuable energy by reducing heat losses.
- to prevent condensation in situations with large temperature differences

Features

Colour: white

Solids by volume: 78,12 % / solids by weight 49,79%

Density: 0,527 kg/l (4.40 lbs/gal)

Waterbased: no co-solvents present, curing by evaporation

VOC (Volatile Organic Compounds): 14 gr/l pH: 8,5-9,0

Elongation: 125%

λ - value: 0,07 W/(m.K) at 100 degrees C

Plastic pails containing 5 US gallon (18,925 l)

Pot life: 3 years when stored between 5°C en 35°C in originally closed pails.

Can dry out if left open in direct sun.

Limitations

Do not use for underwater applications.

HPC[®] Coating cannot be used over polypropylene.

HPC[®] Coating is white in colour and cannot be tinted.

Not recommended as the only fire protection material to be used in residential or industrial construction.

Do not use as floor coating.

Do not use externally as this coating is not UV protected. For external use, overcoat with Super Therm[®] or Enamo Grip water based to improve toughness and durability.



Benefits Compared with Traditional Mineral Wool Insulation

- Provides effective and permanent insulation and performs as a heat or cold barrier.
- Immediately reduces surface temperature when applied directly to hot surfaces. Insulates hot surfaces and increases internal temperature and pressure.
- Reduces heat losses and resulting energy savings.
- Easy to use, can be applied by brush, roller or sprayer over any surface, even on elbows and valves, without the need of a shut-down.
- Direct-to-metal coating on properly prepared surfaces.
- Water based, non-flammable and non-toxic formula.
- Does not absorb moisture or lose insulation value.
- HPC[®] Coating prevents condensation and thus corrosion.
- Saves costs by reducing maintenance labor.
- Long-term cost effectiveness.
- Easily repaired on the spot.

Application Instructions

General conditions

HPC[®] Coating will cover previous coatings, provided they are fully adhered to the surface. Surfaces must be clean and dry before application. Loose or flaking old paints or corrosion must be removed by power washing or sandblast. HPC[®] Coating can be applied over metal, concrete, masonry or wood.

Mixing

Stir HPC[®] Coating with a dispersion blade on a drill at a low to medium speed for two minutes till the coating becomes smooth, light and fluffy and has the appearance of thick whipped cream. If it appears to be dry, add max. 1 liter water to a 5 gal pail while continuing to mix.

Application methods

This coating can be applied by brush, roller or spray. If application is by brush, use a soft bristle brush. If application is by spray, use a hopper gun (nozzle 6 mm), a Graco Tex Spray RTX 1500 (nozzle 2 mm) or an airless sprayer. (2,800 psi with 0.035 tip)

For heated applications: apply a prime coat at 1,2 mm and allow to steam off. Once steaming has stopped, apply subsequent coats at 3 to 5 mm per coat to build up as specified thickness is achieved and allow to steam off between coats. Allow 24 hours to fully dry before top coating.

For ambient applications: apply in several coats of no more than 2,5 mm per coat. Allow drying for 1 day in a warm and dry environment between coats. Build up coating in a similar manner until the proper thickness is achieved. Allow to dry in a warm and dry environment for 2 weeks before top coating with Super Therm[®].

For cold applications: never apply to pipes that are condensating or will be back in operation within 30 days, unless HPC[®] Coating is fully cured.

Spray equipment should be flushed and cleaned with water.



Recommended spread rates

Primer: 2,4 m²/ gal results in 1,27 mm DFT.

Additional coats: 1,2 m²/gal gives 2,54 mm DFT

0,8 m²/gal gives 3,81 mm DFT

0,6 m²/gal gives 5,08 mm DFT

NOTE:

HPC[®] Coating should be overcoated with Super Therm[®] or SP Seal Coat for weathering and UV protection.

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 care. Avoid prolonged contact with skin or breathing of the spray mist. For quickest removal from skin, wash with water before drying. **KEEP OUT OF REACH OF CHILDREN**

TESTING

HPC[®] Coating has passed the following tests:

1. ASTM (American Society for Testing and Materials)
 - E-84 Test Report on HPC[®] Coating prepared by VTEC Laboratories confirming a Class "A" Fire Rating
 - C 177
2. IMO (International Maritime Organization)
 - MSC 61(67), Part 2, Smoke and Toxicity Requirements for Materials Used as Surface of Bulkheads, Linings, or Ceilings

CERTIFICATE

USDA (United States Department of Agriculture)



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