



# HOT PIPE COATING™

## APPLICATION INSTRUCTIONS

### DESCRIPTION

*HOT PIPE COATING is designed to control heat transfer for temperatures up to 485°F (250°C). It is lightweight and smooth in appearance after mixing. HOT PIPE COATING is a water-borne system using a special acrylic/urethane blend with specific ceramic compounds to provide a non-conductive block against heat transfer. HOT PIPE COATING offers a non-flammable/non-toxic formula for hot surface applications over standard steam pipe or oven wall construction, but can be used for insulation of vessels well below freezing, after cured. The coating was designed to create a monolithic insulation system that can be sprayed over most surfaces and higher temperatures. It can be applied over metal, concrete, wood, gypsum, and most other substrates.*

### SURFACE PREPARATION

Surface must be clean from oil, tar, rust, grease, salts, and films.

- Clean ambient surfaces using TSP (tri-sodium-phosphate) or a citrus cleaner to release dirt and degreaser residue and pressure-wash if possible @ 3500 psi (240 bar) and allow to dry
- Salt contamination on a surface can come as a result of salt water, fertilizers, and car exhaust. Use Chlor\*Rid or equivalent to decontaminate surface if salts are present. Acceptable levels: Nitrates: 5-10 mcg/cm<sup>2</sup>, Sulfates: 5-10 mcg/cm<sup>2</sup>, Chlorides: 3-5 mcg/cm<sup>2</sup>
- Clean hot surfaces by removing pack rust, loose dirt and rust using a metal brush or mechanical tool. Remove milscale by grit blast, power tool or needle gun.
- Prime the surface with RUST GRIP if specified

**NOTE:** The temperature of a pipe, valve, or tank cannot be determined by taking the exterior surface temperature where heat is released into the atmosphere. Surface temperatures will rise to match the temperature of the fluid or gas contained once the surface is coated and the heat is held back.

### MIXING

- Mix with commercial drill and a 6" diameter dispersion blade at low or medium speed for 2 minutes, or until like creamy consistency to loosen product. Coating will initially look dry and have a "cakelike" appearance.
- Mechanically stir using blade until water and resins are mixed and coating appears as a thick whipped cream with no lumps. Use an up and down pumping motion while stirring. If it still appears to be dry, please consult with SPE for further instructions.

**NOTE:** For start & stop (lunch), drop gun into pail of water and cover unused pail or hopper with plastic to prevent evaporation of water.



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HOT PIPE COATING must be applied by spray.

- Use a hopper gun for small applications
- Use a Graco GTX 2000EX; RTX 1500 or hopper gun using a nozzle between 2 to 8 mm depending on the thickness of the layer to be applied and the pump volume installed.
- See the SPE Application Equipment sheet to reference further suggested machines. For specialty applications, contact SPE directly
- HOT PIPE COATING cannot be left uncoated and left exposed to weather conditions. It is light-weight to insulate, which leaves it vulnerable to weather conditions. HOT PIPE COATING must be completely dry before applying top coat.
- HOT PIPE COATING is applied between 40°F (5°C) and 120°F (49°C) ambient. Applied HOT PIPE COATING should never be put into use or exposed to below 40°F (5°C) until it is totally cured and moisture has evaporated from coating. Use a moisture meter to determine moisture content. (5% or less)

#### **Hot Surface Applications (up to 250°C)**

Apply a thin priming coat of HOT PIPE COATING at 50 mils wet (1.25mm) and allow coating to cure down and moisture to steam off. (Approx. 5 minutes) Once steaming has stopped, apply additional coats of HOT PIPE COATING at 100-200 mils wet per coat (depending on surface temp) to build to specified thickness. Allow coating to completely steam off between coats before applying additional product. After proper thickness is achieved, allow 24 hours to fully dry and cure before top-coating. Top-coat cured HOT PIPE COATING with SUPER THERM or ENDUROOF to toughen and weatherize the surface. RUST GRIP or ENAMO GRIP can be used to strengthen surface or add color when specified.

**NOTE:** For application over hot, flat steel surfaces, contact SPE for instructions.

**NOTE:** If initial coat or additional coats are applied too thick, bubbles will appear and begin to rise. Bubbles can be punctured to release trapped air and pressed down to allow bubble to adhere.

**NOTE:** In situations where there is continuous cycles causing movement, and/or risk of contraction and/or expansion, or regular handling of the pipe is unavoidable, please contact SPE for further instructions to support the application of HOT PIPE COATING.



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### Cold Surface Applications

Apply a thin priming coat at 50mils wet (1.25 mm) and allow to dry down by evaporation. Build desired thickness to the specified amount using several applications giving each coat time to mostly dry. (Approximately 4 hours at 70° (21°C)). Curing can be enhanced by introduction of dehumidification and heat into the surrounding environment.

Manufacturing or OEM Applications Please contact SPE office.

### High-Heat System (above 250°C)

- HOT PIPE COATING-HT must be applied first at thickness according to temperature level Please contact SPE office.
- RUST GRIP applied @ 150sf/gal (14 m<sup>2</sup>/gal) for toughness
- ENDUROOF for water/air seal, flex for movement and toughness when outside

NOTE: HOT PIPE COATING must be completely dry before applying any top coat!

## CLEAN-UP EQUIPMENT

During breaks, spray systems should be flushed with water. After completion, spray systems should be flushed and cleaned with soap and water.

**Storage of Product:** Store HOT PIPE COATING between 40°F (5°C) and 120°F (49°C)

***LIMITATION OF LIABILITY:** All recommendations or suggestions relating to the use of the products, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use. SPE has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPE does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet. The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.*

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