



HSC COATING

Application Instructions (01/7/11)

HSC™ Coating is designed to control heat transfer for temperatures up to 350°F (176°C). It is lightweight and smooth in appearance after mixing. HSC™ 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. HSC™ Coating offers a non-flammable/non-toxic formula for medium heat 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 for ease of application and for hot surface applications where temperature exposures fall below those that would require the use of HPC™ Coating. HSC™ Coating 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.

- 1) 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. and allow to dry
- 2) 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/cm², Sulfates: 5-10 mcg/cm², Chlorides: 3-5 mcg/cm²
- 3) Clean hot surfaces by removing pack rust, loose dirt and rust using a metal brush or mechanical tool. Remove mill-scale by grit blast, power tool or needle gun.
- 4) 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 4 minutes to loosen product. Coating will initially look dry and have a "cake-like" 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, slowly add water while continuing to mix. In a 5-gallon pail, a maximum totaling 1 quart (1 liter) of water may be added as needed to achieve the desired consistency.

APPLICATION

HSC™ Coating can be applied by brush, roller or spray.

- 1) If application is by brush, use a soft bristle brush.
- 2) If application is by roller, use a 3/8" nap roller.
- 3) If application is by spray, use a Graco TexSpray 1500 or hopper gun using a 2-4 mm nozzle. See the SPI Application Equipment sheet to reference suggested machines. For specialty application, contact SPI.

- Surface temperatures over 300°F (149°C) cannot be brushed or rolled, and must be sprayed.
- HSC™ Coating is applied between 40°F (5°C) and 120°F (49°C) ambient. Applied HSC™ 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. (5% or less)

Hot Surface Applications: Apply a thin priming coat 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 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 with SUPER THERM®, RUST GRIP®, or ENAMO GRIP® to toughen and weatherize the surface.

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.

Cold Surface Applications: Apply a thin priming coat at 25 mils wet (0.63 mm) and allow to dry down by evaporation. Build desired thickness to the specified amount using several applications giving each time to mostly dry. (Approximately 4 hours at 70°F (21°C)). Curing can be enhanced by introduction of dehumidification and heat into the surrounding environment.

Manufacturing or OEM Applications: Please contact SPI office.

CLEAN-UP EQUIPMENT

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

Storage of Product: Store HSC™ Coating between 40°F (5°C) and 120°F (49°C)