



# SPI COATINGS

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## HPC® HT Coating

INSULATION  
AND  
CORROSION  
SPECIALISTS

### Application Instructions (01/29/20)

#### APPLICATION SPECIFICATIONS

The calculated thickness of HPC®-HT should be applied in multi-coats. First coat is 0.5mm (20 mils) then next coat is 1mm (40mils) and third and additional coats applied @ 3mm (120 mils) and more, according to steaming and bubbles. Avoid creating bubbles with a coat being too thick. These coats are applied very quickly, back to back, as the applicator moves along the substrate being coated. Stop-and-start action is not required between coats, unless application area is very small.

- 1) HPC®-HT Coating must be applied by spray. Use a hopper gun for small applications.
- 2) Use a Texspray 2000 with the flex head gun or hopper gun using a 6-8 mm nozzle. For specialty applications, contact SPI.
- 3) For operating temperature below 232°C (450°F), use standard HPC®; if above 232°C (450°F) use HT PRIMER first.
- 4) If operating temperature is less than 300°C, the dry time between coats could extend to 20-40 minutes because of the silicone resins.
- 5) Applied HPC®-HT Coating should never be over coated with any coating until moisture content is 5% or less.
- 6) **Hot Surface Applications.** First, apply HT PRIMER. Then, apply a thin priming coat of HPC®-HT Coating at 20 mils wet (0.5mm). Coating will appear to 'bounce off' but this can be counteracted by increasing distance from surface and using high air pressure and quick movement until coating 'bites' onto the surface. Allow coating to cure down and moisture to steam off (approx. 5 minutes). Once steaming has stopped, apply second coat of HPC®-HT Coating at 1mm wet per coat. Subsequent coats can be built with normal procedures as the 'bounce off' action will not occur. **Allow coating to completely steam off between coats before applying additional product.** With each coat of HPC®-HT the thickness of each coat can increase until proper thickness is achieved. Allow HPC®-HT to fully dry and cure before top coating. If bubbles appear, you are applying too thick.
- 7) Pot Life: After A&B are mixed together, you have 6 hours to use before it thickens too much to spray.

**NOTE:** Bubbles can be punctured to release trapped air and pressed down to allow bubble to adhere after initial coats; avoid causing bubbles. If bubbles appear after one pass, wait until the surface dries to touch and pat the bubbles down flat before next pass.

**NOTE:** Check pail every 10-15 minutes to see if white film forms on top; if so, stir for one minute.

#### SURFACE PREPARATION

Surface must be clean from all residues and degreasers.

- 1) If heavy rust needs to be removed prior to application, unit should be shut off and power washed at ambient temperature. Clean by removing pack rust, loose dirt and rust using a wire brush or mechanical tool. Remove mil-scale by grit blast, power tool or hammer gun.

**NOTE:** The internal temperature of a pipe, valve, or tank cannot be determined using an IR-gun 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.

Make sure that all valves, parts and release valves are rated for the actual interior temperature that will increase once it is coated.

#### MIXING

**NOTE:** While mixing and applying HPC®-HT, a paint respirator should be worn at all times.

- 1) HPC®-HT is made up of two parts: Part A is a white water-based resin blend; Part B is a clear curing agent. When opening Part A you will see a collection of solid material—do not worry. Using a 6" diameter dispersion blade, push your blade through the top crust of ceramics and blend well at a low-medium speed (it takes about 30 seconds).

- 2) When adding Part B into Part A, stir and lift and drop the blade in the solution with a swift up-and-down until you feel the mixture loosen and blend together the white mixture with the brown. Blend for 3-5 minutes until you achieve a smooth texture, and the color becomes a uniform shade of tan with fibers. Then move blade in a circle from bottom to top to finish.

For best adhesion between PRIMER and first coat of HPC-HT, apply the PRIMER first (use a small airless but remove gun filters or hopper with small tip), while it is steaming (5-10 minutes), apply the first coat of HPC-HT. If there is a long delay, after the first coat of HPC-HT is applied, additional coats can be sprayed any time—even the next day.

**SPRAYING BLENDED PRODUCT:** **NOTE:** Apply **ONLY** while in operation so that surface is hot. Use drop cloths under the pipe and to block other areas from overspray as the resin system mist can put a thin layer of slick residue on floor and on other equipment next to spray area. A tremendous amount of steam will come off because this is water-based.

**ADDING HPC-HT TO TEXSPRAY 2000:** Begin pouring HPC-HT into Texspray hopper. Remove spray gun from product hose line. Turn product flow up until product starts to flow. Discard any excess water into waste bucket until only HPC-HT is flowing out of the line. Turn pump pressure off. Place spray gun on product hose line. **NOTE:** While Texspray is running, always have the air on the gun slightly open to prevent product from clogging the air line. Turn on pump presser, then pull trigger to spray HPC into Texspray hopper until there is a solid stream of product. Allow all air to exit out of hose. First coat will seem liquid and can only be applied very thinly and may have some drips. After it dries, the second and following coats are easier and able to be applied heavier or thicker without sag or drips. As you apply the third and remaining coats, do not apply more than 5mm (200 mils) and make sure that the coat is dry before applying the next coat. If you see the coat or layer move, then stop applying and allow it to dry.

**NOTE:** For start & stop (lunch), clean equipment with soap and water/Simple Green mixture 50/50 anytime a delay of 1 hour or more.

Place gun and tip in water/Simple Green solution to keep tip from clogging if laying it down for one hour or more.

#### SAFETY NOTES:

- 1) A full-face (PPE) Respirator with carbon filter must be used when spraying by anyone in the area.
- 2) The steam release from the water-blended resins has a slight odor and is initially irritating to the eyes and respiratory. The steam vapor must be properly ventilated, using fans to exit it out of the building or structure while HPC-HT is being applied.

#### CLEAN-UP EQUIPMENT

During breaks, spray systems should be flushed with heptane/water followed with soap and water, and waste product disposed of properly.

**Storage of Product:** Store separate components of HPC®-HT Coating between 40°F (5°C) and 120°F (49°C) according to the related safety indications on the SDS for each part (A&B).

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