

STEEL-IT Silicone High Temperature

1K Silicone-Coating with stainless steel particles

Description:

The STEEL-IT Silicone High Temperature Coating is a liquid one-component product consisting of synthetic resin and particles of stainless steel. After application, the synthetic resin evaporates and leaves a very hard, resistant layer of 316L stainless steel on the coated surface.

STEEL-IT 5904 can withstand constant temperatures of 537°C, with spikes to 649°C.

STEEL-IT 5904 is self-priming and does not require a primer or precoat. The use of other primers is not recommended as the coating must be free to form bonds with the bare steel at high temperature. The coating has very good adhesion to surfaces made of metal and Structural steel.

The stainless-steel coating provides a unique, high-quality corrosion protection and protects the surface excellently against impacts, abrasion, moisture, solvents, alkalis, as well as UV radiation.

The stainless-steel coating is non-toxic and USDA-approved for use in the food processing where incidental food contact may occur.

Technical Data:

	STEEL-IT 5904 Silicone High Temperature
Colour	gray (colour changes as temperature increases)
coverage* at 75 µm dry film thickness	7,36 m ² /L
Maximum In-Service Temperature	649°C

*Assumes 20% loss due to overspray and waste

Application:

Film Thickness:

Application of one coat with a dry film thickness of 51 - 75 µm.

To achieve a dry film thickness of 51 - 75 µm, a wet film thickness of 102 µm should be applied.

Surface Preparation:

Grit-blast (e.g., sandblast) the surface to a 35-50 µm sharp angular cut profile (per SSPC SP-6). If blasting is not an option, power-sanding (e.g., with a dual-action sander) using #36 grit sandpaper. Clean all surfaces thoroughly afterwards (air hose or suitable cleaning agents).

Notes:

Apply only when:

- ambient and substrate surface temperatures are between 10°C and 38°C
- relative humidity is less than 85%.
- Temperature of substrate surface and of coating are at least 2.75 °C above the dew point.

Application method:

With a conventional air spray gun, pressure air spray gun, or airless gun. Alternatively possible with brush or roller. For more information, please read the application instructions.

Curing:

After applying one coat at the recommended thickness, the coating must be baked at 204.4°C for a minimum of 60 minutes to cure.

Where baking is not possible, the system can cure over time with the heat of being in service if the entirety of the coated surface evenly reaches at least 204.4°C for a minimum of 1 hour in the initial run.

Thinning:

If it is absolutely necessary to add thinner, use Xylene and do not dilute the coating more than 5%.

Cleanup:

To clean spray guns and other application equipment after applying the STEEL-IT Silicone High Temperature, only use Mineral Spirits, Xylene or Solvent Naphtha.