

## STEEL-IT Epoxy-System

### 2K Epoxy-Coating system with stainless steel particles

#### Description:

The STEEL-IT Epoxy-Systems are liquid two-component products consisting of synthetic resin and particles of stainless steel. After application, the solvents contained evaporate, leaving a very hard, resistant layer of 316L stainless steel and synthetic resin on the coated surface. After application, the synthetic resin evaporates and leaves a very hard, resistant layer of 316L stainless steel on the coated surface.

The coating systems have very good adhesion to surfaces made of steel, galvanized steel, aluminium, nickel-plated steel, copper, brass and other non-porous surfaces. The coating adheres to the surface by interlocking with the rough surface profile. The stainless-steel coating provides a unique, high-quality corrosion protection and protects the surface excellently against impacts, abrasion, moisture, solvents, alkalis etc. The stainless-steel coating is non-toxic and USDA-approved for use in the food processing where incidental food contact may occur.

#### Technical Data:

	4210 Epoxy Precoat	4907 Epoxy Topcoat
colour	light grey	steel grey
closest RAL	-	7023
solids	by weight: 64 % by volume: 54 %	by weight: 55 % by volume: 48 %
coverage* at 75 µm (3 mils) dry film thickness	5,6 m <sup>2</sup> /L	5,1 m <sup>2</sup> /L
VOC (volatile organic compounds)	383 g/L	431 g/L

\*Assumes 20 % loss due to overspray and waste

#### Coating Properties:

	Test Method	4210 Precoat + 4907 Topcoat
Wet Film Adhesion Dry Film Adhesion	ASTM D3359, Method B	5 5
Specular Gloss	ASTM D523, at 60°	25 - 35
Impact Flexibility, direct Impact Flexibility, indirect	ASTM D2794	160 in/lbs 90 in/lbs
Surface Resistivity		1 x 10 <sup>7</sup> Ω
Maximum In-Service Temperature		121-149°C
Corrosion Resistance:	ISO 12944-6:2018 ASTM B117 (Salt Fog Test)	C4-High /C5-Med ~ 4550 h
Condensing Humidity Resistance:	ISO 12944-6:2018 ASTM D4585	C4-High /C5-Med ~ 3500 h

## Application:

### Film Thickness:

Surfaces exposed to the weather or light chemicals:

1 coat 4210 Precoat (75 µm dry film thickness, 155 µm wet film thickness)

1 coat 4907 Topcoat (75 µm dry film thickness, 180 µm wet film thickness)

In case of immersed surfaces or contact with harsh chemicals, it is recommended to apply a second coat of 4907 Topcoat.

### 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). Surfaces must be free of all rust, old paint, greases, waxes, salts, dirt, etc.

### Mixing:

Thoroughly agitate each component separately for 5 minutes. Then mix component A and B in a volume ratio of 1:1 and leave for 45 minutes (induction time). Shake again before application.

**Pot life:** The mixed coatings have a pot life of 6-8 hours.

### 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.

### Drying Time:

dry to touch: 2 h

tack free to handle: 12 h

dry to recoat window: 12-24 h

STEEL IT Epoxy-Systems reach their final hardness and full corrosion protection properties after 5 - 7 days

### Thinning:

Only if absolutely necessary and only use SSC 6811 Equipment Cleaning Blend or aromatic, glycol ether based solvents. Do not dilute the coatings more than 5%.

### Cleanup:

To clean spray guns and other application equipment after applying the STEEL-IT Epoxy-System, only use SSC 6811 Equipment Cleaning Blend or aromatic, glycol ether based solvents.