



Technical Data Sheet

The STEEL-IT Epoxy System

STEEL-IT® 4210 Epoxy Precoat
STEEL-IT® 4907 Epoxy Topcoat

The STEEL-IT® Epoxy System, consisting of STEEL-IT® 4210 Epoxy Precoat and STEEL-IT® 4907 Epoxy Topcoat, is extremely durable, offering outstanding resistance to corrosion, abrasion, moisture, salt-spray, and harsh chemicals. Utilizing a unique 316L stainless steel leafing pigment, this two-component catalyzed system creates a hard, nontoxic, metallic gray finish. The STEEL-IT® Epoxy System offers superior protection in both demanding industrial areas and marine environments.

Applications	<ul style="list-style-type: none"> Machinery; architecture and construction; food processing and packaging; agriculture; aerospace; marine; other Certified for ISO 12944-6:2018 categories C4-High and C5-Medium USDA compliant for incidental food contact
Substrates	<ul style="list-style-type: none"> Steel, galvanized steel, aluminum, nickel-plated steel, copper, brass
System	<ul style="list-style-type: none"> 1 coat STEEL-IT® 4210 Epoxy Precoat (Part A + Part B mixed 1:1) 75 µm Dry Film Thickness (DFT) and 1 coat STEEL-IT® 4907 Epoxy Topcoat (Part A+ Part B mixed 1:1) 75 µm Dry Film Thickness (DFT) For particularly harsh conditions, a total thickness of 225 µm DFT is recommended; 1 coat Precoat and 2 coats Topcoat.

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	4210 Epoxy Precoat (A + B)	4907 Epoxy Topcoat (A + B)
Color (Closest Pantone)	537 C	424 C
Color (Closest RAL)	-	7023
Solids % by weight	64%±2%	55%±2%
Solids % by volume	54%±2%	48%±2%
Density (calculated)	1,35 kg/L	1,19 kg/L
VOC (calculated)	383 g/L	431 g/L
Coverage* at 75 µm DTF	5,66 m²/L	5,05 m²/L

*Values are considered "practical" coverage, calculated for smooth surfaces and assume 20% loss due to overspray



Coating Properties†

	Testmethode	4210 Precoat / 4907 Topcoat
Dry and Wet Film Adhesion	ASTM D3359, Method B	5B dry 5B wet
Gloss: 60°	ASTM D523	25 - 35
Impact Flexibility: Direct	ASTM D2794	160 in/lbs
Impact Flexibility: Indirect		90 in/lbs
Surface Resistivity		1 X 10 ⁷ Ω
Max. In-Service Temperature	Hot Box	121-149°C
Corrosion Resistance (Salt Fog Test)	ISO 12944-6:2018 ASTM B117/D1654	C4-High/C5-Med -4,550 h
Condensing Humidity Resistance	ISO 12944-6:2018 ASTM D4585	C4-High/C5-Med 720 h

†Properties measured on 2-coat 125-150 µm films cured for 14 days at room temperature.



KEB DL3 Servo Motor coated with the STEEL-IT Epoxy System

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STEEL-IT® Epoxy-System: STEEL-IT® 4210 Epoxy Precoat und STEEL-IT® 4907 Epoxy Topcoat

Surface Preparation	<ul style="list-style-type: none"> Surfaces should be clean and free of all rust, paint, greases, waxes, salts, dirt, scale, etc. For best results, grit-blast to SSPC SP-6 (Commercial Blast) Anchor pattern should be cut and angular at 38 - 50 µm deep Power-sanding with a dual-action sander or random orbital sander using #36 grit sandpaper will achieve similar results
Mixing	<ul style="list-style-type: none"> Agitate Part A and Part B separately for 5 minutes before mixing respective Part A and Part B in a 1:1 ratio by volume Power agitate mixture for 5 minutes and allow to stand ("induct") for an additional 45 minutes before use Pot-life is 6-8 hours
Conditions	<ul style="list-style-type: none"> Apply only when ambient and substrate surface temperatures are 10 - 38 °C Relative humidity less than 85% Temperature of substrate surface and of coating at least 2.75 °C above the dew point
Equipment	<ul style="list-style-type: none"> Preferred application method is using an Air, Airless, Air-Assisted Airless, or HVLP spray gun; brush and roller may also be used
Recommended Wet Film Build	<ul style="list-style-type: none"> To achieve 75 µm Dry Film Thickness (DFT), apply: STEEL-IT® 4210 Epoxy Precoat: 150 µm Wet Film Thickness (WFT) STEEL-IT® 4907 Epoxy Topcoat: 175 µm Wet Film Thickness (WFT)
Dry Time and Recoat Windows	<ul style="list-style-type: none"> STEEL-IT® 4210 Epoxy Precoat <ul style="list-style-type: none"> Dry to touch: 2 hours Tack-free to handle: 12 hours Dry to recoat window: 12-24 hours STEEL-IT® 4907 Epoxy Topcoat <ul style="list-style-type: none"> Dry to touch: 2 hours Tack-free to handle: 12 hours Dry to recoat window: 12-24 hours If product is not recoated within 24 hours, a light scuff-sanding using #400-600 grit paper is required before applying an additional coat
Curing	<ul style="list-style-type: none"> Cure at ambient temperatures of 10-49 °C Both temperature and climate conditions (e.g. high humidity or high aridity) will impact cure time Cure time required before part can be packaged or put into service depends on how the part will be used Full cure in 5-7 days after final coat. Corrosion resistance continues to improve with prolonged atmospheric aging over a 4-6 week period
Safety	<ul style="list-style-type: none"> Wear a NIOSH-approved respirator with an organic vapor cartridge Use nitrile gloves Apply STEEL-IT® in a well-ventilated area

For detailed information on surface preparation, application instructions, and recommended spray gun equipment settings please refer to the Application Instructions for the STEEL-IT Epoxy System online at [STEEL-IT-EUROPE.com](https://steel-it-europe.com). The latest versions of the Safety Data Sheets (SDS) are available online at [STEEL-IT-EUROPE.com](https://steel-it-europe.com).

The information presented in this Technical Data Sheet is accurate at the date of publication, however the data may be revised as new results becomes available. The reported values fall within the normal range of measured product properties and shall not be used to establish specification limits. All users are responsible for conducting testing to determine the suitability of materials for the specific requirements of their applications.

STEEL-IT® is a registered trademark of Stainless Steel Coatings, Inc.

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