

TS2-R

Ceramic Epoxy Coating For Robotic Application



DATA SHEET

Brushable coating 100% solid, with filling of ceramic micro spheres for protection from abrasion. Excellent chemical resistance with presence of caustics and acids. It is easily applied with brush, roller and airless. Designed for robotic coating application with rotatory atomizer.

- Applies up to 1mm without sagging
- Extreme adhesion on steel, bronze, aluminum, concrete
- Protection against corrosion and abrasion

APPLICATION AREAS

- Bins and silos
- Valves
- Water boxes
- Centrifugal pumps
- Tanks
- Heat exchangers
- Ventilators
- Waterline cells
- Impellers
- Metal structures
- Screw conveyors
- Internal coating of pipelines, joints and girth welds

COVERAGE

15 kg kit covers 21.5 m² (232 sf)
500 micron thickness (20 mils)

COLOR

Gray or blue. Green and red options

PACKAGING

Size	Reorder #	Size	Reorder #
1 kg	TS2R-01	2 kg	TS2R-02
7.5 kg	TS2R-7.5	15 kg	TS2R-15

TECHNICAL DATA

Maximum Temperature (depending on the service)	Wet Service Dry Service	90°C 150°C	194°F 320°F
Solids by Volume	100%		
Mixed Density	1.4		
Shore D Hardness	(ASTM D 2240)	85	
Pot Life	25 min / kg at 72°F		
SAG Vertical Resistance at 21°C (70°F) and 1mm (40mils)	No sagging		
Mixing Ratio	3:1 by volume 5:1 by weight		Base: Activator
Shelf Life (unopened containers)	3 years at 55-95°F (13-35°C)		



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SURFACE PREPARATION

Proper surface preparation is critical to the long-term performance of this product. The exact requirements for surface preparation vary with the severity of the application, the expected service life and the initial conditions of the substrate. All sharp edges and welds shall be roughed to a radius of 3mm (120 mil) with abrasive disc. Optimal preparation will provide a thoroughly cleaned surface of all contaminants and rough to an angular profile between 75-125m (3-5 mil). This is normally achieved by initial cleaning and degreasing and then abrasive blasting to a White Metal (SSPC-SP10) or close to white metal cleaning, followed by the removal of abrasive residues from the jet on the surface to be coated. Minimum preparation is mechanical preparation St2/St3.

MIX

Mix the activator well in the base with themixing rod scraping the sides and the bottom of the container. Mix by volume 3 parts Base to 1 part of Activator. Or mix by weight 5 parts Base to 1 part of Activator. Mix thoroughly to produce a uniform and without stripes. Never put solvents.

APPLICATION TEMPERATURE

Keep between 55 and 176°F (17 to 80°C). When heated above 45°C, heat part A and B in separate chambers such as plural airless or robotic applicator. Substrate: keep between 45 and 194°F (7 to 90°C). The substrate shall be at least 5°F (3°C) above the dew point. If necessary, heat the metal before surface preparation using electric heater or heat lamp. Never use gas, oil or kerosene heaters, as they will leave a greasy residue on the metal surface. For best results, keep all material in the warm zone overnight (75°F+) for easy mixing.

CURED TIME

	16°C (60°F)	25°C (77°F)	32°C (90°F)
Tack Free	4 hours	2 hours	1 hour
Light Load	12 hours	6 hours	3 hours
Term Overlay	16 hours	10 hours	5 hours
Full Charge	24 hours	12 hours	6 hours
Complete Chemical	48 hours	24 hours	12 hours

FDA COMPLIANCE

This product complies with FDA regulations: FDA 21 CFR 175.300 and FDA 21 CFR 175.105.

APPLICATION

Brush: medium to stiff bristle of sufficient quality that bristles do not pull out and stick in coating (epoxy glued bristles are best). Trim or tape to <1" nap. Roller: use good quality 1/8" nap. Airless Spray: 45:1 or larger with TIP 529-535, pressure 5,000psi +. Temperature 50°C (122°F). Plural Component Airless: Gracco Xp70 or equivalent, heated to 43°C (109°F). Robotic Application: Robotic coating application on internal girth welds using rotatory atomizer.



CLEAN

Tools should be thoroughly cleaned immediately after use with a strong alkaline detergent.

SAFETY

Before using any product, review the Safety Data Sheet (SDS) or Safety Data Sheet for your area. Follow standard confined space entry and work procedures, if applicable.

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