

# TS5-R

## High Temperature Ceramic Epoxy Coating for Robotic Application



### DATA SHEET

Brushable coating 100% solid, Novolac Epoxy with filling of ceramic micro spheres for protection from abrasion. Excellent chemical resistance with presence of highly aggressive caustics and acids. Withstand temperatures up to 230°C in immersion. 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

### PACKAGING

Size	Reorder #	Size	Reorder #
1 kg	TS5R-01	2 kg	TS5R-02
7.5 kg	TS5R-7.5	15 kg	TS5R-15
1125 ml	TS5R-Cart		

### TECHNICAL DATA

Maximum Temperature (depending on the service)	Wet Service	230°C	450°F
	Dry Service	280°C	536°F
Solids by Volume		100%	
Mixed Density		1.4	
Shore D Hardness	(ASTM D 2240)	83	
Pot Life		35 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)	

### APPLICATION AREAS

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

### COVERAGE

15 kg kit covers 21.3m<sup>2</sup> (232 sf)  
500 micron thickness (20 mils)

### COLOR

Gray or blue. Green and red options



Taurus Epoxy, Inc.  
4450 NW 126th Ave, Suite 107  
Coral Springs, FL 33065 USA  
Tel: (561) 757 - 5620  
E-mail: [taurus@taurusepoxy.com](mailto:taurus@taurusepoxy.com)  
Website: [www.taurusepoxy.com](http://www.taurusepoxy.com)



# TS5-R

## High Temperature Ceramic Epoxy Coating for Robotic Application

### 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.

### 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.

Manufacturer, Taurus Epoxy Inc., makes no warranty either expressed or implied including warranties of merchantability or fitness for a particular purpose for this product. Under no circumstances will the manufacturer be liable for incidental, consequential, or other damages, breach of warranty, strict liability, or any other theory arising out of use of this product. The information and or recommendations contained herein are based on standard Product and are proprietary and furnished solely for the use of our customers. This information is provided in good faith and believed to be true and accurate as of the date/version of this document. As the manufacturer has no control over the use conditions or application process of the parties using this product, the manufacturer cannot accept responsibility for loss, injury or other damages resulting from the use of the Product or this or any other information provided by the manufacturer. Therefore, no guarantees of any kind, expressed or implied, are made by the manufacturer, Taurus Epoxy Inc., regarding this, or any, product manufactured by them or any contracted or licensed manufacturer. Taurus epoxy products do not provide structural integrity or improvement. They are only used to provide protection from corrosion, wear, abrasion and chemical attack on a given substrate and only to the extent provided for in the Data Sheets, Technical Data Sheets, Safety Data Sheets, and any other information as supplied in writing directly from manufacturers technical support.



Taurus Epoxy, Inc.  
4450 NW 126th Ave, Suite 107  
Coral Springs, FL 33065 USA  
Tel: (561) 757 - 5620  
E-mail: [taurus@taurusepoxy.com](mailto:taurus@taurusepoxy.com)  
Website: [www.taurusepoxy.com](http://www.taurusepoxy.com)

