

TS5

High Temperature Ceramic Epoxy Coating



DATA SHEET

Brushable coating, 100% solids, based on Novolac Epoxy technology with ceramic microsphere fillers for protection against abrasion. Excellent chemical resistance in highly aggressive caustics and acids. Withstands temperatures up to 230°C in immersion. Easily applied by brush, roller, or airless spray. The coating exhibits low surface energy (40 dyn/cm), providing anti-adhesive properties that facilitate the flow of dust and bulk materials such as sugar, cement, and minerals, reducing build-up.

- 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 | TS5-01 | 2 kg | TS5-02 |
| 7.5 kg | TS5-7.5 | 15 kg | TS5-15 |
| 1125 ml | TS5-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 | 2:1 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

7.5 kg kit covers 10.7m² (115 sf)
500 micron thickness (20 mils)

COLOR

Gray or blue. Green and red options



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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 75-125µm (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 the mixing rod scraping the sides and the bottom of the container. Mix by weight 2 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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