

DURA-COAT METAL 400F

DESCRIPTION AND RECOMMENDED USES

Dura-Coat Metal 400F is a 100% solids, solvent-free, ceramic-filled coating specifically designed as a protective lining for metals in chemically aggressive environments, especially under high-abrasion conditions. It performs exceptionally well in a wide range of caustic and acidic environments. It can be easily applied by brush or roller at thicknesses up to 40 mils without sagging.

- Can be applied up to 40 mils without sagging
- Extreme adhesion to steel, bronze, aluminum, and concrete
- Suitable for corrosion and abrasion protection

FDA COMPLIANCE

This product complies with FDA regulations for direct food contact, specifically FDA 21 CFR 175.300 and FDA 21 CFR 175.105.

APPLICATION AREAS

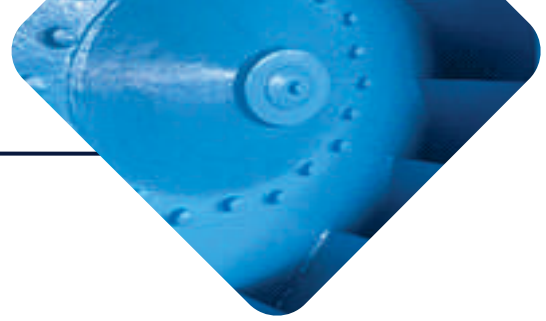
- Piping
- Screw conveyors
- Water tanks
- Heat exchangers
- Fans
- Valves
- Pump casings
- Tanks
- Impellers
- Steel structures
- Internal lining of piping, joints, and circumferential welds

PACKAGES

| | SIZE | REORDER # |
|---------|--------|-----------|
| OPTIONS | 1kg | 400F-01 |
| | 2kg | 400F-02 |
| | 7.5kg | 400F-7.5 |
| | 15kg | 400F-15 |
| | 1125ml | 400F-Cart |

TECHNICAL DATA

| | | | |
|--|---|-------------------------------|-------|
| Maximum Temperature (dependent on service) | Wet Service | 90°C | 194°F |
| | Dry Service | 150°C | 320°F |
| Chemical Resistance | Water | Excellent | |
| | Alkalis | Excellent | |
| | Inorganic Acids | Good | |
| | Organic Acids | Good | |
| | Organic Solvents | Good | |
| Solids by Volume | | 100% | |
| Mixed Density | | 1.4 | |
| Shore D Durometer Hardness | (ASTM D 2240) | 85 | |
| Pot Life | | 25 min / kg at 72°F | |
| Vertical SAG Resistance at 21°C (70°F) and 1 mm (40mils) | | No sag | |
| Coverage for 7.5kg Kit | 115sf@20mils | 10.7m ² @500micron | |
| Mix Ratio | 2:1 by weight | Base: Activator | |
| Color | Gray as standard. Blue and red optional. Other colors contact the manufacture | | |
| Shelf Life (unopened containers) | 3 years at 55-95°F (13-35°C) | | |



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SURFACE PREPARATION

Proper surface preparation is fundamental to the long-term performance of this product. The exact surface preparation requirements vary depending on application severity, expected service life, and the initial condition of the substrate. The minimum requirement is mechanical surface preparation to St2/St3. Ideal preparation will provide a surface completely free of all contaminants and with an angular roughness profile between 75–125 µm (3–5 mil). This is typically achieved through an initial cleaning and degreasing, followed by abrasive blasting to near-white metal cleanliness (Sa 2½), and then removal of any remaining abrasive residue from the surface to be coated.

MIXING

Thoroughly mix the Activator into the Base using the mixing paddle, scraping the sides and bottom of the container. Mix by weight, 2 parts Base to 1 part Activator. Mix well until the material is uniform and free of streaks. Never add solvents.

CURED TIME

| | 16°C (60°F) | 25°C (77°F) | 32°C (90°F) |
|----------------------|-------------|-------------|-------------|
| TACK FREE | 3 hours | 1,5 hours | 1 hour |
| LIGHT LOAD | 6 hours | 3 hours | 2 hours |
| OVERCOAT END | 8 hours | 5 hours | 3 hours |
| FULL LOAD | 10 hours | 6 hours | 4 hours |
| FULL CHEMICAL | 12 hours | 8 hours | 6 hours |

APPLICATION

Brush: medium-to-stiff bristles, of sufficient quality so they do not shed or become embedded in the coating (epoxy-bonded bristles are best). Trim or tape the bristles so the length is less than 1".
 Roller: use a good-quality roller with a 1/8" nap.
 Airless Spray: 45:1 ratio or higher with a 529–535 tip, 5000 psi or higher. Temperature: 50°C (122°F).
 Plural-Component Airless: Graco XP70 or equivalent, heated to 43°C (109°F).
 Robotic Application: Robotic application of the coating on internal circumferential welds using a rotary atomizer.

APPLICATION TEMPERATURE

Maintain between 55 and 95°F (17 to 35°C). Substrate: maintain between 45 and 105°F (7 to 40°C). The temperature difference between the substrate and the material must never exceed 10°F (5°C). The substrate must be at least 5°F (3°C) above the dew point. Do not apply if relative humidity exceeds 90%. If necessary, heat the metal prior to surface preparation using an electric heater or heat lamp. Never use gas, oil, or kerosene heaters, as they will leave an oily residue on the metal surface. For best results, keep all material in a heated area overnight (above 75°F) to facilitate mixing.

CLEAN UP

Tools must be immediately cleaned after usage by using industrial alkaline detergent.

SAFETY

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

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