



# DURA-COAT METAL 400S

## DESCRIPTION AND RECOMMENDED USES

100% solids, Dura-Coat Metal 400S is a solvent free, ceramic filled coating designed particularly as a protective coating for metals in highly aggressive environments especially high wear abrasion. Excellent in a wide array of caustics and acids. Dura-Coat Metal 400S can be easily applied by brush, roller and airless spray up to 40 mils without slump.

- It can be applied up to 40 mils without slump
- Suitable for any substrate, steel, bronze, aluminum, 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

- Pipelines
- Screw conveyors
- Water boxes
- Heat exchangers
- Fans and housings
- Valves
- Tanks linings
- Pump cases
- Metallic structures
- Impellers
- Internal coating of pipelines, joints and girth welds

## PACKAGES

	SIZE	REORDER #
OPTIONS	1kg	400S-01
	2kg	400S-02
	7.5kg	400S-7.5
	15kg	400S-15
	1125ml	400S-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 <sup>2</sup> @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 critical to the long-term performance of this product. The exact requirements for surface preparation vary with the severity of the application, expected service life, and the initial substrate conditions. Minimum preparation is mechanical preparation St2/St3. Optimum preparation will provide a surface thoroughly cleaned of all contaminants and roughened to an angular profile between 75-125 µm (3-5 mil). This is normally achieved by initial cleaning and degreasing and then abrasive blasting to a cleanliness of Near White Metal (Sa.21/2), followed by removal of residual abrasive blast residues from the surface to be coated.

## MIXING

Thoroughly mix Activator into Base with mixing stick or drill with low speed mixing blade scraping sides and bottom of container or mixing board. Mix by weight 2-parts Base to 1-part Activator. Mix thoroughly to produce an even colored and streak-free material. THINNING: Never thin.

## CURED TIME

	16°C (60°F)	25°C (77°F)	32°C (90°F)
<b>TACK FREE</b>	6 hours	4 hours	3 hours
<b>LIGHT LOAD</b>	12 hours	8 hours	6 hours
<b>OVERCOAT END</b>	16 hours	10 hours	8 hours
<b>FULL LOAD</b>	24 hours	16 hours	12 hours
<b>FULL CHEMICAL</b>	48 hours	24 hours	18 hours

## APPLICATION

Brush: medium to stiff bristles, of sufficient quality so they do not shed or get stuck in the coating (epoxy-bonded bristles are best). Trim or tape to a length under 1".  
 Roller: use a high-quality roller with 1/8" nap.  
 Airless Spray Gun: 45:1 ratio or higher with TIP 529–535, pressure of 5000 psi or more. Temperature at 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

Keep between 55 to 95°F (17 to 35°C). Substrate: keep between 45 to 105°F (7 to 40°C). the difference in temperature of the substrate and the material should never exceed 10°F, 5°C. Substrate shall be a minimum of 5°F (3°C) above dew point. Do not apply if relative humidity exceeds 90%. If necessary, heat the metal prior to surface preparation using electric heater or heat lamp. Never use gas, oil, or kerosene heaters as they will leave a greasy residue on metal surface. For best results keep all material in warm area overnight (75°F+) for ease of 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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