



DURA-COAT

LOW-SURFACE ENERGY 290

DESCRIPTION AND RECOMMENDED USES

100% solids, Dura-Coat Low-Surface Energy 290 is a solvent-free, ceramic-filled coating specifically designed to minimize the build-up of sticky powders while providing excellent chemical and abrasion resistance. It performs effectively in a wide range of caustics and acidic environments. Dura-Coat Low-Surface Energy 290 can be easily applied by brush or roller up to 40 mils without slump. The coating is characterized by low surface energy (40 dyn/cm), determined through contact angle testing, which imparts anti-adhesive properties against dust, sugar, and dry minerals. This feature promotes the flow of bulk materials such as grains, copper concentrate, cement, and sugar, reducing material accumulation and improving handling efficiency.

- 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.

PACKAGES

	SIZE	REORDER #
OPTIONS	1kg	290-01
	2kg	290-02
	7.5kg	290-7.5
	15kg	290-15

APPLICATION AREAS

- Bins
- Silos
- Fans
- Impellers
- Screw conveyors
- Air moving conveyors
- Tanks
- Many others
- Blowers

TECHNICAL DATA

Maximum Temperature (dependent on service)	Wet Service	230°C	446°F
	Dry Service	280°C	536°F
Chemical Resistance	Water	Excellent	
	Alkalis	Excellent	
	Inorganic Acids	Excellent	
	Organic Acids	Excellent	
	Organic Solvents	Excellent	
Solids by Volume		100%	
Mixed Density		1.4	
Shore D Durometer Hardness	(ASTM D 2240)	83	
Pot Life		35 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	10,7m²@500 micron	
Mix Ratio	2:1 by weight		Base: Activator
Color	Gray as standard. Blue and red optional. Other colors contact the manufacturer		
Shelf Life (unopened containers)	3 years at 55-95°F (13-35°C)		



ABRASION



AGGRESSIVE CHEMICALS



HIGH TEMPERATURE



DURA-COAT LOW-SURFACE ENERGY 290

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)
TACK FREE	4 hours	2 hours	1 hour
LIGHT LOAD	12 hours	6 hours	3 hours
OVERCOAT END	16 hours	10 hours	5 hours
FULL LOAD	24 hours	12 hours	6 hours
FULL CHEMICAL	48 hours	24 hours	12 hours

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.

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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