

## Technical Data Sheet

**DESCRIPTION AND RECOMMENDED USES:** 100% solids, **Dura-Coat Low Surface Energy 290** is a solvent free, ceramic filled coating designed particularly to avoid build up of stick powders and also provides chemical and abrasion protection. Excellent in a wide array of caustics and acids. **Dura Coat Low Surface Energy 290** can be easily applied by brush or roller 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

### Application Areas:

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



### TECHNICAL DATA

|   |   |   |                           |
|---|---|---|---------------------------|
| Maximum Temperature (Dependent on service)            | Wet Service<br>Dry Service  | 230°C<br>280°C  | 450°F<br>536°F            |
| Chemical Resistance                                   | Water<br>Alkalis<br>Inorganic Acids<br>Organic Acids<br>Organic Solvents      | Excellent<br>Excellent<br>Excellent<br>Excellent<br>Excellent |                           |
| Flexural Strength                                     | (ASTM D 790)  | 620 kg/cm <sup>2</sup> (60.7 MPa)                             | 8,800 psi                 |
| Pull-Off Adhesion                                     | (ASTM D 4541)   | 330 kg/cm <sup>2</sup> (32.4 MPa)                             | 4,700 psi                 |
| Tensile Strength                                      | (ASTM D 638)  | 211 kg/cm <sup>2</sup> (20.7 MPa)                             | 3,000 psi                 |
| Flexural Modulus                                      | (ASTM D 790)  | 6.9 x 10 <sup>4</sup> kg/cm <sup>2</sup>                      | 9.9 x 10 <sup>5</sup> psi |
| Shore D Durometer Hardness                            | (ASTM D 2240)   | 80  |                           |
| Taber Abrasion CS-10, 1000g, 1000 Cycles              | (ASTM D 4060)   | 35mg  |                           |
| Pot life  |   | 35 MIN / KG at 72°F   |                           |
| Vertical SAG Resistance at 21C (70F) and 1mm (40mils) |   | No sag  |                           |
| Coverage for 10Kg kit                                 | 154sf @20mils   | 14.3m <sup>2</sup> @500 micron                                |                           |
| Mix Ratio   | 2:1 by Weight   |   | Base: Activator           |
| Color   | Grey as standard. Blue and Red optional. Other colors contact the manufacture |   |                           |
| Shelf life (unopened containers)                      | 3 Years at 55-95°F (13-35°C)  |   |                           |

## Application Sheet

### 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. All sharp edges and welds shall be ground smooth or to a 3 mm (120 mil) radius before abrasive blasting. Optimum preparation will provide a surface thoroughly cleaned of all contaminants and roughened to an angular profile between 75-125  $\mu\text{m}$  (3-5 mil). This is normally achieved by initial cleaning and degreasing and then abrasive blasting to a cleanliness of White Metal (SSPC-SP10) or Near White Metal, 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 1-parts Base to 1-part Activator. Mix thoroughly to produce an even colored and streak-free material.

**THINNING: Never thin.**

### 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.

### Curing Schedule

|               | 16°C (60°F) | 25°C (77°F) | 32°C (90°F) |
|---------------|-------------|-------------|-------------|
| Tack Free     | 4 hrs.      | 2 hrs.      | 1 hr.       |
| Light Load    | 12 hrs.     | 6 hrs.      | 3 hrs.      |
| Overcoat End  | 16 hrs.     | 10 hrs.     | 5 hrs.      |
| Full Load     | 24 hrs.     | 12 hrs.     | 6 hrs.      |
| Full Chemical | 48 hrs.     | 24 hrs.     | 12 hrs.     |

### Clean Up

Use commercial solvents (Acetone, Xylene, Alcohol, Methyl Ethyl Ketone) to clean tools immediately after use. Once cured, the material would have to be abraded off.

### 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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