

Technical Data Sheet

DESCRIPTION AND RECOMMENDED USES: 100% solids, **Dura-Coat Rebuild Chemical Fast 251** is a solvent free, high functionality Novolac Epoxy coating and with **FAST CURING agent**. It is designed particularly as a rebuilding material for metals in highly aggressive chemical and temperature immersion service **Dura-Coat Rebuild Chemical Fast 251** is convenient-to-use, non-sagging with excellent high temperature resistant and high mechanical strength. It is able to withstand up to 230°C continuous operation and up to 280°C intermittently.

- It can be applied up to 500 mils without slump
- Ideally suited for restoration cladding material for corrosion
- Suitable for and abrasion protection
- Suitable for immersion and non-immersion service.



Application Areas:

- ✓ Shafts
- ✓ Heat exchangers
- ✓ Electric power plant
- ✓ Hot oil pipeline break
- ✓ Chemical storage tanks
- ✓ Fans and housings
- ✓ Pump cases
- ✓ Impellers
- ✓ Scrubbers
- ✓ Mix Zones
- ✓ Ducts

TECHNICAL DATA

Maximum Temperature (Dependent on service)	Wet Service Dry Service	230°C 280°C	446°F 536°F
Chemical Resistance	Water Alkalis Inorganic Acids Organic Acids Organic Solvents	Excellent Excellent Excellent Excellent Excellent	
Flexural Strength	(ASTM D 790)	620 kg/cm ² (60.7 MPa)	8,800 psi
Pull-Off Adhesion	(ASTM D 4541)	330 kg/cm ² (32.4 MPa)	4,700 psi
Tensile Strength	(ASTM D 638)	211 kg/cm ² (20.7 MPa)	3,000 psi
Flexural Modulus	(ASTM D 790)	6.9 x 10 ⁴ kg/cm ²	9.9 x 10 ⁵ psi
Shore D Durometer Hardness	(ASTM D 2240)	80	
Taber Abrasion CS-10, 1000g, 1000 Cycles	(ASTM D 4060)	15mg	
Pot life		25 MIN / KG at 72°F	
Vertical SAG Resistance at 21C (70F) and 12mm (1/2")		No sag	
Coverage for 10Kg kit	54sf @40mils	5m ² @1mm	
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 μm (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 2-parts Base to 1-part Activator. Mix thoroughly to produce an even colored and streak-free material.

THINNING: Never thin.

Application

Use heavy plastic squeegee or putty knife. Work material into profile of substrate to achieve maximum adhesion and to remove any entrapped air. Contour to correct form with putty knife or plastic applicator. If mold or form is used, coat its surface with a release agent to prevent adhesion of the material. Machining is possible using carbide tipped tools. Grinding is possible if done within 4 hours of application at 77°F, 25°C (add 1-1/2 hour for each 10°F below 77°F, subtract 1 hour for each 10° above 77°F). Large holes and cracks can be bridged with glass or metal cloth.

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	45min	30 min	20 min
Light Load	1 hrs.	45 min.	30 min
Término de sobrecapa	1 hrs.	45 min	30 min
Full Load	1.5 hrs.	1 hrs.	45 min.
Full Chemical	4 hrs.	3 hrs.	2 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.

Manufacturer, Dura-Coat Industrial Inc., makes no warranty either expressed or implied including warranties of merchantability or fitness for a particular purpose for this product. Under no circumstances will the manufacturer be liable for incidental, consequential, or other damages, breach of warranty, strict liability, or any other theory arising out of use of this product. The information and or recommendations contained herein are based on standard Product and are proprietary and furnished solely for the use of our customers. This information is provided in good faith and believed to be true and accurate as of the date/version of this document. As the manufacturer has no control over the use conditions or application process of the parties using this product, the manufacturer cannot accept responsibility for loss, injury or other damages resulting from the use of the Product or this or any other information provided by the manufacturer. Therefore, no guarantees of any kind, expressed or implied, are made by the manufacturer, Dura-Coat Industrial Inc., regarding this, or any, product manufactured by them or any contracted or licensed manufacturer. DURA-COAT® epoxy products do not provide structural integrity or improvement. They are only used to provide protection from corrosion, wear, abrasion and chemical attack on a given substrate and only to the extent provided for in the Data Sheets, Technical Data Sheets, Safety Data Sheets, and any other information as supplied in writing directly from manufacturers technical support.