

Technical Data Sheet

DESCRIPTION AND RECOMMENDED USES: 100% solids, **Dura-Coat Rebuild Chemical 201** is a solvent free, high functionality Novolac Epoxy coating. It is designed particularly as a rebuilding material for metals in highly aggressive chemical and temperature immersion service **Dura-Coat Rebuild Chemical 201** 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 14 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	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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