



Devcon Wear Guard 300RTC

Description: Wear Guard 300RTC is a revolutionary wear and abrasion alumina ceramic bead-filled Novalac epoxy compound. Wear Guard 300RTC is formulated to significantly outlast traditional wear and abrasion products while also providing superior performance in wet and dry hot conditions up to 300°F / 150°C

Intended Use: Industrial Use: Repair and protect flotation tanks, scrubbers, ash handling systems, pipe elbows, screens, and chutes; recontour chippers, bins, hoppers, bunkers, separators, diester tables; protect exhausters, chutes, launderers, housing fans, crushers, and breakers

Features: Room Temperature Cure, Elevated services temperatures up to 300°F / 150°C, Trowelable to a smooth surface
Outstanding wear resistance and flexibility, hand contoured and finished with Water.
Can also be oven baked at 212°F / 100°C for 2 hrs and achieve a full cure

Limitations: Suitability of product is determined by the end user for their application and process.

Typical Physical Properties: Technical data should be considered representative or typical only and should not be used for specification purposes.

Cured 7 Days @ 75°F (24°C)	Typical Values	Standard Tests
Adhesive Tensile Shear	600 psi @ 225°F (107°C)	Cured Hardness Shore D ASTM D 2240
Color	Blue / Blue-Green when heated	Flexural Strength ASTM D 790
Coverage/lb.	5.2 ft.lb./in.(2)	Flexural Displacement ASTM D 790
Compressive Strength	12,500 psi	Dielectric Cinstant ASTM D 150
Cured Hardness	82 Shore D	Coef. of Thermal Expansion ASTM D 696
Flexural Displacement	0.10 in. (2.54 mm)	Adhesive Tensile Shear ASTM D 1002
Flexural Strength	5,000 psi	Pull-Off Adhesion ASTM D 4541
Functional Cure	8-10 hrs.	Taber Abrasion ASTM D 4060
Full Cure	16 hrs.	* H-18 Wheel @ 1000 cycles
Mix Ratio by Volume	2:1	
Mix Ratio by Weight	2:1	
Mixed Viscosity	32,000 cps Pot Life @ 75°F (24°C)	
Pot Life	50-70 min.	
Pull-Off Adhesion	3000 psi (21 Mpa)	
Solids by Volume	100	
Recoat Time	4-6 hrs.	
Specific Gravity	2.2 g/cc	
Wet Abrasion Resistance	0.13 in/wk @ 1000 RPM	
Taber Abrasion (mg/1000 cycles)	12	
Dielectric Constant	3.3	
Coefficient of Thermal Expansion	43.6 ppm/°C	
Temperature Resistance	Wet:300°F; Dry:>300F (150C)	
Sag	No Sag up to 0.25 in. (6.4 mm)	

- Surface Preparation:**
1. Thoroughly clean the surface with Devcon® Cleaner Blend 300 to remove all oil, grease and dirt.
 2. Grit blast surface area with 8-40 mesh grit, or grind with a coarse wheel or abrasive disc pad, to create increased surface area for better adhesion (Caution: An abrasive disc pad can only be used provided white metal is revealed). Desired profile is 3-5mil (0.08-0.13 mm), including defined edges (do not "feather-edge" epoxy).

Note: For metals exposed to sea water or other salt solution, grit-blast and high-pressure-water-blast the area, then leave overnight to allow any salts in the metal to "sweat" to the surface. Repeat blasting to "sweat out" all soluble salts. Perform chloride contamination test to determine soluble salt content (should be no more than 40ppm).
 3. Clean surface again with Devcon® Cleaner Blend 300RTC to remove all traces of oil, grease, dust, or other foreign the grit blasting.
 4. Repair surface as soon as possible to eliminate any changes or surface contaminants.

WORKING CONDITIONS: Ideal application temperature is 55°F to 90°F (13°C to 32°C). In cold working conditions, directly heat repair area to 100°F-110°F (38-43°C) prior to applying epoxy and maintain at this temperature during product cure to dry off any moisture, contamination or solvents, as well as to achieve maximum performance properties.

Mixing Instructions: ---- It is strongly recommended that full units be mixed, as ratios are pre-measured. ----

1. Add hardener to resin.
2. Mix thoroughly with screwdriver or similar tool (continuously scrape material away from sides and bottom of container) until a uniform, streak-free consistency is obtained

LARGE SIZES: (25 lb., 30 lb., 50 lb. (11.4 Kg, 13.6 Kg, 22.7 Kg) buckets): Use a T-shaped mixing paddle or a propeller-type Jiffy Mixer Model ES on an electric drill. Thoroughly fold putty by vigorously moving paddle/propeller up and down until a homogenous mix of resin and hardener is attained.

Application Instructions:

Spread mixed material on repair area at a minimum thickness of 0.25 inch (6.4 mm). Work firmly into substrate to ensure maximum surface contact. Wear Guard 300RTC fully cures in 16 hours, at which time it can be machined, drilled, or painted.

FOR BRIDGING LARGE GAPS OR HOLES

Place fiberglass sheet, expanded metal, or mechanical fasteners between repair area prior to application.

FOR VERTICAL SURFACE APPLICATIONS

Wear Guard 300RTC can be troweled up to 1/2" (12.7 mm) thick without sagging.

FOR ± 70°F APPLICATIONS

Applying epoxy at temperatures below 70°F (21°C) lengthens functional cure and pot life times. Conversely, applying above 70°F (21°C) shortens functional cure and pot life.

Storage:

Store at room temperature, 70°F (21°C)

Compliances:

None

Chemical Resistance:

Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F (24°C))

Acetic (Dilute) 10%	Poor	Nitric 50%	Excellent
Cutting Oil	Excellent	Phosphoric 50%	Excellent
Gasoline, unleaded	Excellent	Potassium Hydroxide 40%	Very good
Hydrochloric 36%	Excellent	Sodium Hydroxide 40%	Excellent
Methanol	Poor	Sodium Hypochlorite	Excellent
Methyl Ethyl Ketone	Poor	Sulfuric 10%	Excellent
Methylene Chloride	Poor	Sulfuric 50%	Excellent
Nitric 10%	Fair	Toluene	Excellent

Precautions:

FOR INDUSTRIAL USE ONLY: Please refer to the appropriate Safety Data Sheet prior to using this product.

Warranty:

ITW Performance Polymers will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

Order Information:

Item No. 11430
Package Size 30 lb

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