Rezorect™ 125 Ceramic Wearing Compound

PRODUCT DATA SHEET

Typical Applications: Hoppers, Bins, Chutes, Pump Volutes, Cooling Water Pumps, Valves, Slurry Equipment, Mix Tanks, Condensers, Water Boxes, Jigs, Pump Rotating Elements, Pipe, Pipe Fittings, Scrubbers, Filters, Discharge Doors, Cone Bottoms, Shakes, Conveyers, Spiral Separators, Flotation Cells, Rubber Lining Repair

PRODUCT DATA

Rezorect 125 Ceramic Wearing Compound is a trowel-applied, highly abrasion resistant compound designed to give maximum abrasion resistance. As it possesses maximum loading of specially sized and treated ceramic particles and silicon carbide, Rezorect 125 Ceramic Wearing Compound protects against cavitation, entrained particulate abrasion, and wearing surface abrasion.

The combination of the ceramic reinforcement and silicon carbide, with the corrosion resistant epoxy resin alloy, offers maximum performance in the areas of abrasion, friction reduction and turn-around time.

While 125 Ceramic Wearing Compound is designed to be cured at ambient temperature, when practical, it may be post cured by several methods to accelerate complete cure, thus placing coated objects in service in a much shorter time.

The non-sagging, non-shrinking properties of 125 Ceramic Wearing Compound permits application to vertical surfaces, cavities and intricate parts. When cured, it may be machined with tungsten carbide or diamond tools.

ADVANTAGES

Trowel-applied, highly abrasion-resistant

- Only the highest quality resins and reinforcements are used to produce Rezorect materials, assuring the applicator of long lasting successful applications, when correctly applied.
- Will not sag or run when applied to vertical surfaces.
- 100% solids and will not shrink.
- When used for non-corrosion service, single coat applications are possible.
- Specially treated and sized ceramic reinforcements create a smooth and continuous surface.
- User friendly 125 Ceramic Wearing Compound is easy to mix and apply, reducing application time and returning equipment to service with shorter turnaround.
- Superior chemical resistance

TECHNICAL DATA (Simplified)

Finish	Smooth
Color	Gray
Components	Two (2)
Curing Mechanism	Chemical Reaction
Sag Resistance	at 75°F (24°C) by 1/2"(12mm)Thickness--No Sag
Theoretical Coverage	at 1.75 sq ft/US 1 kg (240 mils) of product
VOC	None
Volume Solids	100%

Service Temperature Limits	200°F (93°C) Immersed	350°F (177°C) Dry
Compressive Strength	ASTM D695 15,800 psi (1110 kg/cm²)	
Flexural Strength	ASTM D790 8,100 psi (570 kg/cm²)	
Tensile Strength	ASTM D638 3,700 psi (260 kg/cm²)	
Abrasive Resistance	ASTM D4060 1,000 Cycles, 1,000 Grm load CS/10 wheel, Taber abraser, 123 mg wgt loss	
Adhesive Tensile Shear	ASTM D1002 Steel 2,600 psi (182 kg/cm²) Concrete - Concrete Failure	

APPLICATION DATA

SURFACE PREPARATION		
CONCRETE	Whenever possible abrasive blast to ASTM 4258 Std. Remove all surface contaminates and laitance, exposing clean uncontaminated concrete. If abrasive blast cleaning is not possible, mechanical cleaning with hand or power tools is acceptable. Acid washing or chemical cleaning prior to application not recommended. If concrete is old, a "Pull Test" should be performed, ASTM D1002, with minimum pull achieved of 330 psi (21 kg/cm²) before concrete failure.	***Note***: Coating success for floors is more likely if a vapor barrier was installed when concrete was poured.
METAL	Abrasive blast all steel substrates to a standard meeting (SSPC-10) SA2.5 near white finish. All other metals should be clean. All metals should have a 3-4 mils (75-100 microns) minimum (anchor pattern). When hand or power tool cleaning is the only method available, remove all foreign material and in the case of steel remove all mill scale. Following hand and power cleaning solvent wash prior to application of material to remove grease or oils.	***Note:*** All pump casting surfaces to be coated, depending upon material exposure, should first be abrasive blasted, then heated to a minimum of 450° F (232° C) for 12 hours and then reblasted to remove the surface oxidation that has formed. Prior to coating make sure all dust, oils or water are removed.
PRIMER	Apply Rezorect 198 SUPER WET or DRY SURFACE PRIMER to concrete prior to the application. Rezorect 198 SUPER WET or DRY SURFACE PRIMER may also be used on metals if the situation warrants.	
APPLICATION DETAILS	Carefully open and stir contents of individual containers. The container marked BASE (A) is designed to hold the entire contents of the ACTIVATOR (B) for mixing. If less than full containers will be used, a ratio of 4 parts base and 1 part activator must be USED.	***Note:*** Working and cure times are based on temperature and mass. The higher the temperature or the greater the mass, the shorter the working and cure times. Mix the base & activator by weight thoroughly until color is uniform. The larger the batch, the longer the mix time. Mix no more than 3 minutes. Take a small amount of material and thoroughly wet the application substrate. After substrate is wet, begin to build to the desired thickness.

SAFETY: When handling or applying Rezorect 125 Wearing Compound always wear protective clothing, gloves, face shield and eye protection. Consult Material Safety Data Sheet (MSDS) for additional hygiene and safety information.

Maximum continuous immersion service temperature (°F) (°C)
The absence of a percentage behind the chemical indicates maximum concentration.

CHEMICAL RESISTANCE

ACIDS		OTHER	
Acid cleaner for masonry	AMB	Aviation Gasoline	AMB
Benzene Sulfonic	200F° (93C°)	Brake Fluid	AMB
Carbonic	AMB	Bunker	200F° (93C°)
Citric	AMB	Crude Oil	200F° (93C°)
Fatty	150F° (66C°)	Diesel Oil	180F° (82C°)
Hydrochloric 37%	AMB	Deionized Water	AMB
Maleic	AMB	Dibutyl	AMB
Oxalic	AMB	Dimethyl Phthalate	AMB
Phosphoric All	AMB	Ethyl Alcohol (Ethanol)	AMB
Stearic	AMB	Ethylene Glycol	200F° (93C°)
		Gasohol	AMB
ALKALIS		Gasoline	AMB
Ammonium Carbonate Sat	150F° (66C°)	Hydraulic Fluid/Oil	150F° (66C°)
Ammonium Hydroxide 29%	100F° (38C°)	Isopropyl Alcohol	AMB
Calcium Hydroxide	100F° (38C°)	Jet Fuel	AMB
Magnesium Carbonate Sat	100F° (38C°)	Kerosene	AMB
Magnesium Hydroxide	100F° (38C°)	Methyl Alcohol (Methanol)	AMB
Potassium Bicarbonate 50%	AMB	Naptha	AMB
Potassium Carbonate 50%	AMB	Salt Water	200F° (93C°)
Potassium Hydroxide Sat	AMB	Sewage (Human Waste)	200F° (93C°)
Sodium Bicarbonate Sat	100F° (38C°)	Skydrol	AMB
Sodium Carbonate Sat	100F° (38C°)	Styrene	AMB
Sodium Hydroxide 10%	100F° (38C°)	Toluene	AMB
Sodium Hydroxide 50%	AMB	Turpentine	AMB
		VM&P Naphtha	AMB
BLEACHES		Xylene	AMB
Chlorine Water Sat	150F° (66C°)		
Sodium Hypochlorite 15%	AMB		

AMB = Ambient

When restoring the surface of such items as a pump shaft, do not apply more material than necessary to make a smooth continuous surface. Reduction of the coating thickness is much easier when the coating is applied than after the very hard and abrasive resistant coating is cured. After desired thickness is achieved, allow material to gel, firm to touch. Although coating has gelled, it will remain tacky. If accelerated curing is desired after the "firm gel" stage has been reached, the complete object (e.g. pump shaft) may be heated or hot air may be directed onto the coating surface. Complete cure can be achieved in two (2) hours at 150°F (66°C). ***Note:*** Applying heat to ungelled coating can result in premature gelation prior to complete crosslinking of the coating, which may result in coating failure.

APPLICATION DATA

Apply to abrasive blasted metals & concrete (use Rezorect 198 Super Wet or Dry Primer with concrete).
Mixing Ratio by Weight: 4 parts base to 1 part activator.
Note: Carefully mix separate components before adding together.

Application Method:

Trowel/spatula

Pot Life: 20-30 minutes at 75°F (24°C)
Minimum Thickness Per Coat: 80 mils (2mm)
Minimum Coats: Two
Recoat: When gelled
Maximum Recoat Window Between Coats: If time exceeds six (6) hours, surface of coating must be abraded.

Drying Time: ASTM D1640 at 50-90% RH

	90°F (32°C)	70°F (21°C)	50°F (10°C)	35°F (2°C)
Dry to Touch	3 Hr	6 Hr	9 Hr	30 Hr

CLEAN UP: Thoroughly clean all tools and utensils upon completion of application with acetone or methyl ethyl ketone.
Note: These solvents will remove natural oils from the skin, always wear solvent resistant gloves.

PACKAGING: Rezorect 125 Ceramic Wearing Compound is available in the following package sizes:

1 kg Kit packaged 6 Kits per / case

STORAGE: Shelf life in tightly sealed containers is one year when stored at 90°F (32°C), not in sunlight. When stored at 35°F (2°C) to 50°F (10°C) shelf life will be increased.

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