

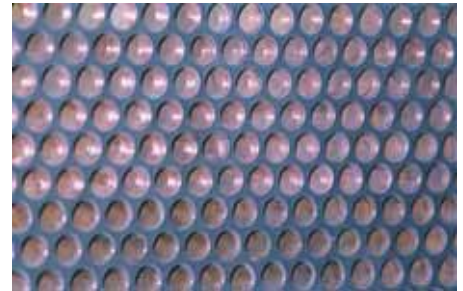
Unique Polymer Systems - Abrasion Resistant Ceramic Carbide Fluid



Unique Polymer Systems

ADVANCED POLYMER SURFACE ENGINEERING TECHNOLOGY

Unique Polymer Systems - Abrasion Resistant Ceramic Carbide Fluid



'Abrasion Resistant Ceramic Carbide Fluid' is a high performance fluid grade engineering resurfacing compound designed to be used as a lining for equipment in fluid-flow environments to protect from abrasion and erosion. 'Abrasion Resistant Ceramic Carbide Fluid' uses a complex blend of polymer resins and a polyamino-amide curing system reinforced with carbide and ceramic particles to produce a coating system with a high level of adhesion, abrasion and erosion resistance combined with optimum physical and mechanical strength along with excellent resistance to corrosive liquids.

'Abrasion Resistant Ceramic Carbide Fluid' offers outstanding protection against impingement, entrainment abrasion and erosion / corrosion conditions. It can be applied by brush or squeezed into any corroded or damaged component in one easy application. It has an excellent adhesion to grit blasted and manually prepared surfaces which makes it an ideal for lining CW pumps, slurry pumps, impellers, valves, tube sheets, water boxes, rudders, heat exchangers where abrasion and erosion protection is required. 'Abrasion Resistant Ceramic Carbide Fluid' has an outstanding resistance to chemical corrosion (Test of SALT FOG passed for 5000 hours) and humidity, which ensures a full proof repair in any working condition.

SURFACE PREPARATION & APPLICATION PROCEDURE

Remove thick deposits like grease, rust, dust, dirt and make surface rough enough. Clean with UPS 'Cleaner'. Surface should be prepared by mechanical grinding / wire wheel / angle grinder / needle gun or by abrasive blasting to SA 2.5 profile. Cross score surface to improve adhesion especially for fluid flow equipments. Check for salt content which should be removed by appropriate methods. Water cleaning / neutralization are required. Surface profile is advised to be around 75 microns.

Mix Resin & Hardener in 3:1 ratio by volume and thoroughly mix until completely streak free. 'Abrasion Resistant Ceramic Carbide Fluid' can be applied by brush, roller, squeeze. Ensure at the time of application that substrate temperature is more than 3 C and humidity is less than 85%.

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PHYSICAL PROPERTIES	
Abrasion Resistance	0.065 ml loss / 1000 cycles
ASTM D4060	CS17 wheel 1 kg load
Heat Distortion	60 °C
ASTM D648	
Tensile Strength	195 kg/cm ²
ASTM D1002	(2800 psi)
Corrosion Resistance	5000 hours
ASTM B117	unaffected
Flexural Strength	635 kg/cm ²
ASTM D790	(9000 psi)
Compressive Strength	915 kg/cm ²
ASTM D695	(13000 psi)
Hardness Rockwell	100
ASTM D785	
Dielectric Strength	12 kV/mm
ASTM D149	
Recommended Thickness	250 microns
Coverage per kilogram	1.63 m ² @ 250 microns

PHYSICAL CONSTANTS		
Mixing Ratio	Resin	Hardner
By volume	3	1
Appearance	Resin	Hardner
Paste / Liquid	Coloured	Amber
Drying Time @ 20°C		
Usable Life	25 Minutes	
Initial Set	3 Hours	
Grinding Time	6 Hours	
Volume Solids	100%	
VOC	Nil	
Operating Temperature	Maximum	Continuous
Dry Heat	250 °C	120 °C
Wet Heat	120 °C	70 °C
Shelf Life	5 years	

CHEMICAL RESISTANCE *	
Acetic Acid 0-10%	Good
Hydrochloric Acid 0-20%	Excellent
Hydrobromic Acid Dilute	Excellent
Nitric Acid 0-10%	Excellent
Crude / Petrol	Excellent
Nitrous Oxide	Excellent
Sulfuric Acid 0-20%	Excellent
Sulphur Dioxide	Excellent
Sea Water	Excellent

SUPPLY INFORMATION

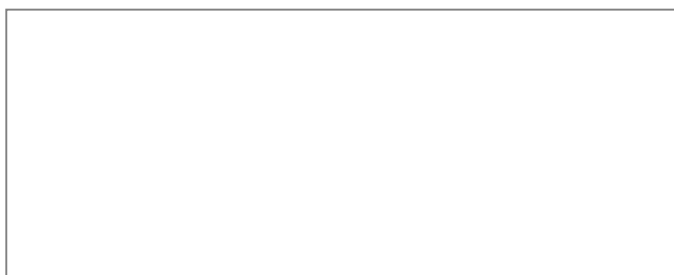
Stock No : UPS205
Description : Abrasion Resistant Ceramic Carbide Fluid
Pack Size : 1 kg

RECOMMENDED APPLICATIONS

- Protective coating for pump bodies, impellers, propellers
- Protective coating of valves, slurry pumps, volutes
- Corrosion protection coating of CW water boxes handling seawater
- Protection of heat exchangers

* for further information see Chemical Resistance Chart

FOR FURTHER INFORMATION PLEASE CONTACT



The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.



Unique Polymer Systems

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