

ACC EP RAP EPI Engineered Polymers Aliphatic Silicone Polyurea

Category: Polymer, Thermoset, Silicone

Material Notes:

EP RAP Aliphatic Silicone Polyurea, "Powered by Reactamine® Technology", is a two component 100% solid Aliphatic Polyurea (silicone optional) that has excellent UV stability (colorfast) with superior performance in industrial applications. EP RAP displays extremely fast cure times with excellent adhesion to different substrates. EP RAP can be spray applied at temperatures ranging from 20°F to 150°F. EP RAP has excellent chemical resistance and excellent water insensitivity. EP RAP conforms to USDA and FDA guidelines for incidental food contact. Applications: EP RAP adheres well to several substrates including concrete, steel, and wood. Some typical uses include: SECONDARY CONTAINMENT WASTEWATER LAGOON AND POOL LININGS TABLE EDGING COLD STORAGE AREAS WASH BAY AND SHOWER LININGS COOLING TOWERS PETROCHEMICAL REFINERIES OILFIELD PIPELINE COATINGS WATER PROOFING SEWER LINERS MANHOLE RESTORATION INDUSTRIAL FLOORINGS ROOF COATINGS BRIDGE COATINGSPart of the Amber Chemical Group. Data provided by manufacturer.

Order this product through the following link:

http://www.lookpolymers.com/polymer_ACC-EP-RAP-EPI-Engineered-Polymers-Aliphatic-Silicone-Polyurea.php

Physical Properties	Metric	English	Comments
Viscosity	450 cP	450 cP	A Side
	600 cP	600 cP	B Side

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	22.8 MPa	3310 psi	ASTM D412
Elongation at Break	375 %	375 %	ASTM D412
Adhesive Bond Strength	>= 1.72 MPa	>= 250 psi	Wood (no primer), Delamination; ASTM D4541 Elcometer
	2.07 MPa	300 psi	Concrete (epoxy), Concrete Failure; ASTM D4541 Elcometer
	2.76 MPa	400 psi	Concrete (no primer), Concrete Failure; ASTM D4541 Elcometer
	>= 6.21 MPa	>= 900 psi	Steel (epoxy primer), Primer Failure; ASTM D4541 Elcometer
	>= 10.3 MPa	>= 1500 psi	Steel (no primer), Substrate Failure; ASTM D4541 Elcometer
Tear Strength	78.9 kN/m	450 pli	ASTM D412
Taber Abrasion, mg/1000 Cycles	76	76	CS17 WHEEL, 1kg per 1000 cycles; ASTM D4060

Thermal Properties	Metric	English	Comments
Flash Point	>= 93.3 °C	>= 200 °F	ASTM Pensky-Martin



Thermal Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Cure Time	0.417 - 2.50 min	0.00694 - 0.0417 hour	Tack Free Time
Gel Time	0.250 min	0.250 min	Fast
	2.00 min	2.00 min	Slow

Descriptive Properties	Value	Comments
Color	All primary colors.	
Resistance to 1,1,1-Trichlorethane	Conditional	
Resistance to Acetic Acid (100%)	Conditional	
Resistance to Acetone	Conditional	
Resistance to Ammonium Hydroxide (50%)	Recommended Conditional	
Resistance to Benzene	Conditional	
Resistance to Brine-Saturated H2O	Recommended	Resistance to Brine-Saturated H ₂ 0 (310g/l)
Resistance to Chlorinated H2O	Recommended	
Resistance to Clorox® (10%) H2O	Recommended	
Resistance to Diesel Fuel	Recommended Conditional	
Resistance to Gasoline	Recommended Conditional	
Resistance to Gasoline/ 5% Methanol	Recommended Conditional	
Resistance to Gasoline/5% MTBE	Recommended Conditional	
Resistance to H2O	Recommended	
Resistance to H2O (14 days at 82°C)	Recommended Conditional	
Resistance to Hydraulic Fluid (oil)	Recommended Conditional	
Resistance to Hydrochloric Acid (20%)	Recommended	
Resistance to Hydrofluoric Acid(10%)	Not Recommended	
Resistance to Isopropyl Alcohol	Recommended	
Resistance to Lactic Acid	Recommended Conditional	
Resistance to MEK	Recommended Conditional	



Descriptive Properties	Peronmended Value	Comments
Resistance to Methylene chloride	Conditional	
Resistance to Mineral Spirits	Recommended Conditional	
Resistance to Motor Oil	Recommended	
Resistance to MTEB	Conditional	
Resistance to Muriatic Acid (10%)	Recommended	
Resistance to NaCl/H2O (10%)	Recommended	
Resistance to Nitric Acid (20%)	Not Recommended	
Resistance to Phosphoric Acid (10%)	Recommended	
Resistance to Phosphoric Acid (50%)	Not Recommended	
Resistance to Potassium Hydroxide (10%)	Recommended	
Resistance to Potassium Hydroxide (20%)	Recommended, Discoloration	
Resistance to Propylene Carbonate	Recommended Conditional	
Resistance to Skydrol®	Conditional	
Resistance to Sodium Bicarbonate	Recommended	
Resistance to Sodium Hydroxide (25%)	Recommended	
Resistance to Sodium Hydroxide (50%)	Recommended, Discoloration	
Resistance to Sodium Hypochlorite (10%)	Recommended	
Resistance to Stearic Acid	Recommended	
Resistance to Sugar/H2O	Recommended	
Resistance to Sulfuric Acid (>50%)	Recommended Conditional	
Resistance to Sulfuric Acid (10%)	Recommended	
Resistance to Toluene	Recommended	
Resistance to Trisodium Phosphate	Recommended	
Resistance to Vinegar/ H2O (5%)	Recommended	
Resistance to Xylene	Recommended Conditional	

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