

Resinlab® EP1305 Black Highly Toughened Urethane Modified Epoxy

Category : Polymer , Adhesive , Thermoset , Epoxy , Epoxy Adhesive

Material Notes:

Resinlab™ EP1305 Black is a highly toughened urethane modified epoxy designed for bonding PVC, metals, ceramics and other difficult to bond substrates. The system has a thixotropic non-sag viscosity but is easily dispensed from side-by-side cartridge systems. It was especially formulated to a 1A:1B mix ratio for use in automatic mixing equipment and dispensers with static mixers. EP1305 Black will reach handle cure at room temperature within 2 – 4 hours. Cure time can be accelerated by the application of heat. Times and temperatures from 2 hours at 65°C to 1 hours at 100°C are typical for most applications. Cooler temperatures will also extend work time and increase cure times. Information Provided by Resinlab L.L.C., an Ellsworth Adhesives Company.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Resinlab-EP1305-Black-Highly-Toughened-Urethane-Modified-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.990 g/cc	0.990 g/cc	Part B; TM R050-16
	1.08 g/cc	1.08 g/cc	Mixed; TM R050-16
	1.18 g/cc	1.18 g/cc	Part A; TM R050-16
Water Absorption	0.97 %	0.97 %	TM R050-35
	@Time 86400 sec	@Time 24.0 hour	
Viscosity	300000 cP	300000 cP	Part B, RVT, #7, 2.5 rpm; TM R050-12
	400000 cP	400000 cP	Mixed; TM R050-12
	500000 cP	500000 cP	Part A, RVT, #7, 2.5 rpm; TM R050-12

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	55	55	TM R050-17
Tensile Strength at Break	15.2 MPa	2200 psi	TM R050-36
Tensile Strength, Ultimate	15.2 MPa	2200 psi	TM R050-36
Tensile Strength, Yield	6.89 MPa	1000 psi	TM R050-36
Elongation at Break	25 - 40 %	25 - 40 %	TM R050-36
Tensile Modulus	0.414 - 0.483 GPa	60.0 - 70.0 ksi	TM R050-36
Compressive Yield Strength	10.3 MPa	1500 psi	TM R050-38
Compressive Strength	131 MPa	19000 psi	Break; TM R050-38
	138 MPa	20000 psi	Ultimate; TM R050-38

Mechanical Properties	Metric ^{MPa}	English	Comments
Adhesive Bond Strength	6.89 MPa	1000 psi	Lap shear; 2024 T3 Al Abraded / MEK Wipe; TM R050-37
Peel Strength	2.63 kN/m	15.0 pli	Al to Al

Thermal Properties	Metric	English	Comments
CTE, linear	60.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	33.3 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
Maximum Service Temperature, Air	150 $^\circ\text{C}$	302 $^\circ\text{F}$	
Minimum Service Temperature, Air	-40.0 $^\circ\text{C}$	-40.0 $^\circ\text{F}$	
Glass Transition Temp, Tg	56.0 $^\circ\text{C}$	133 $^\circ\text{F}$	TM R050-25

Electrical Properties	Metric	English	Comments
Volume Resistivity	8.00e+14 ohm-cm	8.00e+14 ohm-cm	
Dielectric Constant	4.5	4.5	
	@Frequency 100 Hz, Temperature 25.0 $^\circ\text{C}$	@Frequency 100 Hz, Temperature 77.0 $^\circ\text{F}$	
Dielectric Strength	17.3 kV/mm	440 kV/in	

Processing Properties	Metric	English	Comments
Pot Life	10 - 15 min	10 - 15 min	Mass: 50g; TM R050-19

Descriptive Properties	Value	Comments
Color	Black	
Mix Ratio	1:1	Volume
	100:87	Weight

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China