

Resinlab® EP11HT Gray Filled Epoxy Adhesive

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

Material Notes:

Resinlab™ EP11HT Gray is a two part filled epoxy adhesive designed for bonding metals and plastics. It cures at room temperature to a tough, semi-rigid material. It has good wetting to most surfaces and is very thixotropic to resist running and sagging. This product gives very good vibration and impact resistance. It gives good resistance to water, salt spray, inorganic acids and bases and most organic solvents. When used at a 1 to 2 A/B ratio, this system has shown excellent ability to withstand cryogenic temperatures (-196° - Liquid Nitrogen) exposure tested by cooling specimens down to -196°C for 5 to 10 minutes and returning to room temperature without cracking and maintaining original bond strength. It was especially formulated to a 1A:1B volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. EP11HT Gray will reach full cure at room temperature within 24-48 hours. Cure time can be accelerated by application of heat. Times and temperatures from 2 hours at 65°C to 20 minutes at 100°C are typical for most applications. Time to heat substrate must be taken into account. 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-EP11HT-Gray-Filled-Epoxy-Adhesive.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.25 g/cc	1.25 g/cc	Part B; TM R050-16
	1.25 g/cc	1.25 g/cc	Mixed; TM R050-16
	1.26 g/cc	1.26 g/cc	Part A; TM R050-16
Water Absorption	0.50 %	0.50 %	TM R050-35
	@Time 86400 sec	@Time 24.0 hour	
Viscosity	550000 cP	550000 cP	Part B, RVT, #7, 2.5 rpm; TM R050-12
	700000 cP	700000 cP	Mixed; TM R050-12
	800000 cP	800000 cP	Part A, RVT, #7, 2.5 rpm; TM R050-12

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80	80	TM R050-17
Tensile Strength at Break	51.7 MPa	7500 psi	TM R050-36
Tensile Strength, Ultimate	51.7 MPa	7500 psi	TM R050-36
Tensile Strength, Yield	24.1 MPa	3500 psi	TM R050-36
Elongation at Break	1.0 - 2.0 %	1.0 - 2.0 %	TM R050-36
Tensile Modulus	3.45 GPa	500 ksi	TM R050-36

Compressive Yield Strength Mechanical Properties	62.1 MPa Metric	9000 psi English	TM R050-38 Comments
Compressive Strength	114 MPa	16500 psi	Break; TM R050-38
	124 MPa	18000 psi	Ultimate; TM R050-38
Compressive Modulus	2.76 GPa	400 ksi	TM R050-38
Adhesive Bond Strength	15.9 MPa	2300 psi	Lap shear; 2024 T3 Al Abraded / MEK Wipe; TM R050-37

Thermal Properties	Metric	English	Comments
CTE, linear	53.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	29.4 $\mu\text{in}/\text{in}\cdot\text{°F}$	below Tg
	@Temperature ≤ 77.0 °C	@Temperature ≤ 171 °F	
	135 $\mu\text{m}/\text{m}\cdot\text{°C}$	75.0 $\mu\text{in}/\text{in}\cdot\text{°F}$	above Tg
	@Temperature ≥ 77.0 °C	@Temperature ≥ 171 °F	
Thermal Conductivity	0.489 W/m-K	3.39 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	150 °C	302 °F	
Minimum Service Temperature, Air	-40.0 °C	-40.0 °F	
Glass Transition Temp, Tg	77.0 °C	171 °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 °C	@Frequency 100 Hz, Temperature 77.0 °F	
Dielectric Strength	16.1 kV/mm	410 kV/in	

Processing Properties	Metric	English	Comments
Pot Life	≥ 120 min	≥ 120 min	Mass: 50g; TM R050-19

Descriptive Properties	Value	Comments
Color	Gray	
Mix Ratio	1:1	Weight and Volume

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