

Master Bond EP21LV-LO Two Component, Lower Viscosity, Room Temperature Curing Epoxy System

Category : Polymer , Thermoset , Epoxy , Epoxy Encapsulant, Unreinforced

Material Notes:

Product Description: Master Bond EP21LV-LO is a two component, lower viscosity, room temperature curing epoxy system for high performance bonding, sealing, coating and encapsulation. This user friendly system has an easy and convenient one to one mix ratio by weight. EP21LV-LO features outstanding physical strength properties, along with being an excellent electrical insulator. This combination of properties enables it to be readily used as a potting and encapsulation compound. EP21LV-LO resists many chemicals including water, oils, fuels, acids, bases and salts quite well. It bonds well to a variety of substrates including metals, glass, ceramics and many types of rubber and many plastics. To optimize its properties, the best cure schedule is 12-24 hours at room temperature, plus another 2 hours at 150-200°F. Most importantly, EP21LV-LO passes NASA low outgassing specifications. The color of Part A is clear and Part B is amber in color. It is serviceable over the wide temperature range of -60°F to +250°F. This versatile system is widely used in aerospace, microelectronics, semiconductor, optical and vacuum applications. **Product Advantages:** Lower viscosity; convenient mixing; ideal for bonding, sealing, coating and encapsulation. Easily applied; adhesive spreads smoothly. High bonding strength to a wide variety of substrates. Excellent adhesion to similar and dissimilar substrates. Good electrical insulation properties. Superior durability, thermal shock and chemical resistance. Passes NASA low outgassing specifications. Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-EP21LV-LO-Two-Component-Lower-Viscosity-Room-Temperature-Curing-Epoxy-System.php

Physical Properties	Metric	English	Comments
Viscosity	10000 - 14000 cP	10000 - 14000 cP	Part A
	11000 - 15000 cP	11000 - 15000 cP	Part B

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	>= 70	>= 70	
Tensile Strength at Break	>= 51.7 MPa	>= 7500 psi	
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Tensile Modulus	2.07 - 2.41 GPa	300 - 350 ksi	
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Shear Strength	>= 19.3 MPa	>= 2800 psi	Al/Al, bond

Thermal Properties	Metric	English	Comments
CTE, linear	50.0 - 55.0 µm/m-°C	27.8 - 30.6 µin/in-°F	
Maximum Service Temperature, Air	121 °C	250 °F	
Minimum Service Temperature, Air			

Thermal Properties	-53.9 °C Metric	-65.0 °F English	Comments
Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
Dielectric Constant	2.79	2.79	
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	17.3 kV/mm	440 kV/in	
	@Thickness 3.17 mm	@Thickness 0.125 in	

Processing Properties	Metric	English	Comments
Cure Time	120 - 180 min	2.00 - 3.00 hour	
	@Temperature 93.3 °C	@Temperature 200 °F	
	720 - 1440 min	12.0 - 24.0 hour	plus 2 hrs at 150-200°F
	@Temperature 23.9 °C	@Temperature 75.0 °F	
	2880 - 4320 min	48.0 - 72.0 hour	
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Pot Life	60 - 90 min	60 - 90 min	100 gram mass
Shelf Life	12.0 Month	12.0 Month	in original unopened containers
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	1:1	by weight or volume

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