

Master Bond EP33LV Epoxy Has Dimensional Stability and Machinability

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

Material Notes:

Description: Master Bond EP33LV is a two part, room temperature curing epoxy system used for bonding, sealing and coating featuring high temperature resistance, good dimensional stability and very good chemical resistance. This lower viscosity is also much easier to machine compared to most other epoxies. It has a 100 to 70 mix ratio by weight and a very convenient one to one ratio by volume. EP33LV cures readily at room temperature or more rapidly at elevated temperatures. To optimize its properties, the recommended cure schedule is overnight at room temperature followed by a post cure at 150-200°F for 2-3 hours. After curing, this system has an exceptionally high temperature resistance, serviceable up to 450°F. It resists a range of chemicals including water, oils, fuels and many acids and bases. EP33LV bonds well to a wide variety of substrates including metal, glass, ceramics and many rubbers and plastics. It is a reasonably good electrical insulator. EP33LV is 100% reactive and does not contain any diluents or solvents. The color of Part A is gray, Part B is amber. It is widely used in aerospace, electronic, electrical and specialty OEM type applications. Product Advantages: Convenient mixing: one to one ratio by volume. Easy application: contact pressure only required for cure; adhesive spreads evenly and smoothly. High temperature resistance up to 450°F. Excellent chemical resistance. Outstanding dimensional stability. Readily machinable. Good adhesion to a wide variety of substrates. Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-EP33LV-Epoxy-Has-Dimensional-Stability-and-Machinability.php

Physical Properties	Metric	English	Comments
Viscosity	1500 - 3000 cP	1500 - 3000 cP	Part B
	14000 - 18000 cP	14000 - 18000 cP	mixed compound
	100000 - 150000 cP	100000 - 150000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	85 - 90	85 - 90	
Tensile Strength at Break	>= 58.6 MPa	>= 8500 psi	
Tensile Modulus	3.10 GPa	450 ksi	
Shear Strength	>= 15.2 MPa	>= 2200 psi	Bond, Al to Al

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	232 °C	450 °F	
Minimum Service Temperature, Air	-51.1 °C	-60.0 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+12 ohm-cm	>= 1.00e+12 ohm-cm	



Electrical Properties Processing Properties	Metric Metric	English English	Comments Comments
Cure Time	60.0 - 120 min	1.00 - 2.00 hour	
	@Temperature 93.3 °C	@Temperature 200 °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 batch
Shelf Life	12.0 Month	12.0 Month	in unopened container
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	1:1	by volume
	100:70	by weight

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