

Master Bond EP33CLV Epoxy Resists Chemicals and High Temperatures

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

Material Notes:

Description: Master Bond EP33CLV is a two part, room temperature curing epoxy system used for bonding, sealing and coating featuring high temperature resistance, good dimensional stability and excellent chemical resistance. It has a 100 to 70 mix ratio by weight and a very convenient one to one ratio by volume. This system 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. Once cured EP 33CLV has an exceptionally high temperature resistance, serviceable up to 450°F. It resists a range of chemicals including water, oils, fuels and many acids, bases and solvents—some even at higher temperatures. This low to moderate viscosity system bonds well to a wide variety of substrates including metal, glass, ceramics and many rubbers and plastics. It is a good electrical insulator. EP33CLV can be used for small to moderate encapsulation applications. It is 100% reactive and does not contain any diluents or solvents. The color of Part A is light amber, Part B is amber. It is widely used in electronic, electrical, aerospace and specialty OEM type applications where easy handling and high temperature are important considerations. **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. Very good chemical resistance. Excellent electrical insulation properties. 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-EP33CLV-Epoxy-Resists-Chemicals-and-High-Temperatures.php

Physical Properties	Metric	English	Comments
Viscosity	1500 - 3000 cP	1500 - 3000 cP	Part B
	30000 - 70000 cP	30000 - 70000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80 - 85	80 - 85	
Tensile Strength at Break	>= 75.8 MPa	>= 11000 psi	
Tensile Modulus	2.76 GPa	400 ksi	
Shear Strength	>= 19.3 MPa	>= 2800 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+14 ohm-cm	>= 1.00e+14 ohm-cm	
	3.6	3.6	

Dielectric Constant Electrical Properties	Metric @Frequency 60.0 Hz, Temperature 25.0 °C	English @Frequency 60.0 Hz, Temperature 77.0 °F	Comments

Processing Properties	Metric	English	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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