

## Master Bond EP37-3FLSP Optically Clear Epoxy Has Low Exotherm

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

### Material Notes:

**Description:** Master Bond EP37-3FLSP is a very flexible, low viscosity, optically clear two component epoxy resin system designed for high performance bonding, coating and casting applications. It features a forgiving one-to-one mix ratio by weight or volume. As an adhesive, it forms very flexible high strength bonds that offer excellent impact resistance as well as resistance to severe thermal cycling and shock. It bonds well to a wide variety of substrates including metals, glass, ceramics, rubber and many plastics. EP37-3FLSP is a good potting, encapsulating and casting system. Its low exotherm makes it an ideal material for large castings. In this regard it also possesses superior electrical insulation properties. The combination of high flexibility and low exotherm helps prevent EP37-3FLSP from stressing sensitive electronic components during cure. Also noteworthy is the exceptionally long working life which, depending upon mass, could offer beyond 12 hours at room temperature conditions. EP37-3FLSP is serviceable from 4K to +200°F. This versatile system is widely used in optical, electronic, electrical, computer and OEM type applications. **Product Advantages:** Convenient mixing: easy-to-use non critical 2:1 mix ratio by weight or volume. Exceptionally long working life. Cures readily accelerated by heat. Good optical clarity. Very high flexibility. Resists severe thermal and mechanical shocks. Good overall physical strength properties and chemical resistance. Good electrical insulation properties. Low exotherm during cure for large castings. Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-EP37-3FLSP-Optically-Clear-Epoxy-Has-Low-Exotherm.php](http://www.lookpolymers.com/polymer_Master-Bond-EP37-3FLSP-Optically-Clear-Epoxy-Has-Low-Exotherm.php)

Physical Properties	Metric	English	Comments
Water Absorption	<= 1.0 %	<= 1.0 %	24 hour immersion
Viscosity	400 - 500 cP	400 - 500 cP	mixed

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	20	20	
Tensile Strength at Break	>= 6.89 MPa	>= 1000 psi	
Elongation at Break	>= 200 %	>= 200 %	
Shear Strength	>= 3.45 MPa	>= 500 psi	Bond, Al to Al

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	93.3 °C	200 °F	
Minimum Service Temperature, Air	-168 °C	-270 °F	

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	clear; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	
Dielectric Constant	4.6 @Frequency 100 Hz, Temperature 25.0 °C	4.6 @Frequency 100 Hz, Temperature 77.0 °F	
Dielectric Strength	>= 15.7 kV/mm @Thickness 3.17 mm	>= 400 kV/in @Thickness 0.125 in	

Processing Properties	Metric	English	Comments
Cure Time	1440 - 4320 min @Temperature 23.9 °C	24.0 - 72.0 hour @Temperature 75.0 °F	
Pot Life	>= 720 min	>= 720 min	100 gram batch
Shelf Life	12.0 Month @Temperature 23.9 °C	12.0 Month @Temperature 75.0 °F	in original unopened container

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	2:1	by weight or volume

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