

## Master Bond EP37-3FLFAN Electrically Isolating, Flexible Epoxy

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

### Material Notes:

**Description:** Master Bond Polymer System EP37-3FLFAN is a two component system for high performance potting, bonding, sealing and coating that is formulated to cure at room temperature or more rapidly at elevated temperatures. It has a convenient one to one mix ratio by weight or volume. It has an unusual blend of properties including exceptionally high thermal conductivity, excellent electrical insulation properties, good physical strength and a high degree of flexibility. This system forms tough bonds that are resistant to shock, impact and thermal cycling as well as chemicals including water, oil and many solvents. EP37-3FLFAN has low viscosity with excellent flow characteristics making it ideal as a thermally conductive potting epoxy. It is cryogenically serviceable over the wide temperature range of 4K to 250°F. Part A is light gray and Part B is gray in color. Master Bond EP37-3FLFAN is widely used in the electronic, electrical, computer, metalworking, aerospace and chemical industries where electrical insulation and good heat transfer are required. The attractiveness of EP37-3FLFAN lies in the fact that this thermally conductive system retains a high level of flexibility while having the desirable physical characteristics inherent in epoxies. **Product Advantages:** Convenient mixing: easy-to-use, non-critical one to one mix ratio by weight or volume. Long working life; cures readily at room temperature and can be accelerated by heat. Good thermal conductivity with excellent electrical insulation properties. High bond strength to a wide variety of substrates; very good adhesive properties. Low viscosity with excellent flowability; ideal for potting and casting. Outstanding flexibility; resists rigorous thermal cycling, mechanical and thermal shocks. Good overall physical strength properties and chemical resistance. Cryogenically serviceable down to 4K. Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-EP37-3FLFAN-Electrically-Isolating-Flexible-Epoxy.php](http://www.lookpolymers.com/polymer_Master-Bond-EP37-3FLFAN-Electrically-Isolating-Flexible-Epoxy.php)

Physical Properties	Metric	English	Comments
Viscosity	10000 - 20000 cP	10000 - 20000 cP	Part B
	20000 - 30000 cP	20000 - 30000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	35 - 45	35 - 45	
Tensile Strength at Break	>= 27.6 MPa	>= 4000 psi	
Shear Strength	>= 6.21 MPa	>= 900 psi	Bond, Al to Al
Peel Strength	>= 1.75 kN/m	>= 10.0 pli	T-peel, Al/Al

Thermal Properties	Metric	English	Comments
CTE, linear	60.0 - 65.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	33.3 - 36.1 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
Thermal Conductivity	3.17 - 3.46 W/m-K	22.0 - 24.0 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	121 °C	250 °F	

Thermal Properties	Metric	English	Comments
Minimum Service Temperature, Air	-100 °C	-233 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	
Dielectric Constant	5.1 @Frequency 60.0 Hz, Temperature 25.0 °C	5.1 @Frequency 60.0 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	120 - 180 min @Temperature 93.3 °C	2.00 - 3.00 hour @Temperature 200 °F	
	2880 - 4320 min @Temperature 23.9 °C	48.0 - 72.0 hour @Temperature 75.0 °F	
Pot Life	60 - 90 min	60 - 90 min	100 gram batch
Shelf Life	6.00 Month @Temperature 23.9 °C	6.00 Month @Temperature 75.0 °F	in original unopened container

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

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China