

## Master Bond EP30LV-1 Ultra Low Viscosity, Two Part Epoxy System

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

### Material Notes:

**Description:** Master Bond Polymer System EP30LV-1 is an ultra low viscosity, two component epoxy system for high performance bonding, coating, sealing, potting and encapsulation. It readily cures at room temperature or more rapidly at elevated temperatures, and has a five to one mix ratio by weight. This adhesive is 100% reactive and does not contain any solvents or diluents. EP30LV-1 has outstanding physical strength properties along with excellent electrical insulation characteristics. This highly dimensionally stable system has very low shrinkage after cure, less than 0.001 in./in. EP30LV-1 possesses very good optical clarity along with superior light transmission when compared to many other epoxies. This system bonds well to a variety of substrates including metals, glass, and ceramics, as well as many plastics and rubber materials. EP30LV-1 forms high strength, rigid bonds that resist chemicals including water, oil, acids, bases and many solvents. Its low viscosity enables this system to be used for special gap filling applications where space is limited. Master Bond Polymer System EP30LV-1 is widely used in electronic, electrical, optical, chemical and related industries. **Product Advantages:** Convenient mixing: easy to use mix ratio—five to one by weight Easy application: only contact pressure required while curing; adhesive spreads readily Versatile cure schedules: ambient temperature cures or faster at higher temperatures Good ability to fill smaller gaps High bond strength to a wide variety of substrates **Key Features** Very low viscosity Outstanding optical clarity Exceptional physical strength Electrically insulative Dimensionally stable Resistant to a wide variety of chemicals Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-EP30LV-1-Ultra-Low-Viscosity-Two-Part-Epoxy-System.php](http://www.lookpolymers.com/polymer_Master-Bond-EP30LV-1-Ultra-Low-Viscosity-Two-Part-Epoxy-System.php)

| Physical Properties | Metric       | English      | Comments |
|---------------------|--------------|--------------|----------|
| Viscosity           | 280 - 500 cP | 280 - 500 cP | Part B   |
|                     | 200 - 600 cP | 200 - 600 cP | Part A   |

| Mechanical Properties     | Metric      | English     | Comments       |
|---------------------------|-------------|-------------|----------------|
| Hardness, Shore D         | >= 75       | >= 75       |                |
| Tensile Strength at Break | >= 65.5 MPa | >= 9500 psi |                |
| Tensile Modulus           | >= 2.76 GPa | >= 400 ksi  |                |
| Shear Strength            | >= 20.7 MPa | >= 3000 psi | Bond, Al to Al |

| Thermal Properties               | Metric   | English  | Comments |
|----------------------------------|----------|----------|----------|
| Maximum Service Temperature, Air | 121 °C   | 250 °F   |          |
| Minimum Service Temperature, Air | -51.1 °C | -60.0 °F |          |

| Optical Properties | Metric | English | Comments |
|--------------------|--------|---------|----------|
| Refractive Index   | 1.57   | 1.57    |          |

| Electrical Properties | Metric                                     | English                                    | Comments |
|-----------------------|--|--|----------|
| Volume Resistivity    | >= 1.00e+15 ohm-cm                         | >= 1.00e+15 ohm-cm                         |          |
| Dielectric Constant   | 3.35                                       | 3.35                                       |          |
|                       | @Frequency 1000 Hz,<br>Temperature 25.0 °C | @Frequency 1000 Hz,<br>Temperature 77.0 °F |          |
| Dielectric Strength   | 3.55                                       | 3.55                                       |          |
|                       | @Frequency 60.0 Hz,<br>Temperature 25.0 °C | @Frequency 60.0 Hz,<br>Temperature 77.0 °F |          |
| Dielectric Strength   | >= 17.3 kV/mm                              | >= 440 kV/in                               |          |
|                       | @Thickness 3.17 mm                         | @Thickness 0.125 in                        |          |
| Dissipation Factor    | 0.0050                                     | 0.0050                                     |          |
|                       | @Frequency 60.0 Hz,<br>Temperature 25.0 °C | @Frequency 60.0 Hz,<br>Temperature 77.0 °F |          |
| Dissipation Factor    | 0.0060                                     | 0.0060                                     |          |
|                       | @Frequency 1000 Hz,<br>Temperature 25.0 °C | @Frequency 1000 Hz,<br>Temperature 77.0 °F |          |

| Processing Properties | Metric               | English              | Comments              |
|-----------------------|----------------------|----------------------|-----------------------|
| Cure Time             | 120 - 180 min        | 2.00 - 3.00 hour     |                       |
|                       | @Temperature 93.3 °C | @Temperature 200 °F  |                       |
| Pot Life              | 1440 - 2880 min      | 24.0 - 48.0 hour     |                       |
|                       | @Temperature 23.9 °C | @Temperature 75.0 °F |                       |
| Pot Life              | 40 - 60 min          | 40 - 60 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)  | 5:1   | by weight |

## 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