

## Master Bond EP30HT-LO NASA Low Outgassing, Optically Clear Coating

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

### Material Notes:

**Description:** Master Bond EP30HT-LO is a moderate viscosity, two component epoxy adhesive formulated to cure at room temperature or more rapidly at elevated temperatures, with a four to one mix ratio by weight. This is a version of EP30HT that has passed the rigorous testing for NASA low outgassing based on ASTM E595. It is 100% reactive and does not contain any solvents or other volatiles. EP30HT-LO cures rigid with dimensional stability and good physical strength properties. The shrinkage upon curing is very low—less than 0.1%. Most notably, EP30HT-LO also combines good high temperature resistance with excellent optical clarity. EP30HT-LO has good chemical resistance to oil, fuels, acids, bases, salts and solvents. Its temperature range is from -60°F to +400°F. EP30HT-LO has excellent adhesion to a variety of materials including metals, glass, ceramics and many rubbers and plastics. It is a good electrical insulator and can be readily used for smaller encapsulation applications. To optimize the properties for outgassing applications, it is recommended to post cure this system for 2 hours at 150-200°F. It is widely used in the aerospace, electronic, vacuum, optical, fiber-optic and OEM industries. **Product Advantages:** Convenient handling and easy to apply. High mechanical strength, excellent structural adhesive. Good optical clarity, high light transmission properties. Outstanding electrical insulation properties. Good chemical and temperature resistance. Forms dimensionally stable, rigid bonds. Meets NASA low outgassing requirements. Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-EP30HT-LO-NASA-Low-Outgassing-Optically-Clear-Coating.php](http://www.lookpolymers.com/polymer_Master-Bond-EP30HT-LO-NASA-Low-Outgassing-Optically-Clear-Coating.php)

Physical Properties	Metric	English	Comments
Viscosity	250 - 500 cP	250 - 500 cP	Part B
	55000 - 110000 cP	55000 - 110000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	>= 75	>= 75	
Tensile Strength at Break	68.9 MPa	10000 psi	
Shear Strength	>= 20.7 MPa	>= 3000 psi	Bond, Al to Al

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	204 °C	400 °F	
Minimum Service Temperature, Air	-51.1 °C	-60.0 °F	

Optical Properties	Metric	English	Comments
Refractive Index	1.54	1.54	
Transmission, Visible	90 %	90 %	clear; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00 \times 10^{15}$ ohm-cm	$\geq 1.00 \times 10^{15}$ ohm-cm	
Dielectric Constant	3.5 @Frequency 60.0 Hz, Temperature 25.0 °C	3.5 @Frequency 60.0 Hz, Temperature 77.0 °F	
Dielectric Strength	17.3 kV/mm	440 kV/in	
Dissipation Factor	0.0050 @Frequency 60.0 Hz, Temperature 25.0 °C	0.0050 @Frequency 60.0 Hz, Temperature 77.0 °F	

Processing Properties	Metric	English	Comments
Cure Time	120 - 180 min @Temperature 93.3 °C	2.00 - 3.00 hour @Temperature 200 °F	
	720 min @Temperature 23.9 °C	12.0 hour @Temperature 75.0 °F	followed by 2 hours at 150-200°F
	1440 - 2880 min @Temperature 23.9 °C	24.0 - 48.0 hour @Temperature 75.0 °F	
Pot Life	25 - 40 min	25 - 40 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)	4:1	by weight

## Contact Songhan Plastic Technology Co.,Ltd.

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