

## Master Bond EP17HT-LO One component epoxy system for bonding, sealing, coating and casting

Category : Polymer , Thermoset , Epoxy , Epoxy Encapsulant, Unreinforced

### Material Notes:

**Product Description:** Master Bond EP17HT-LO is a one component, heat cured epoxy system for bonding, sealing, coating and encapsulating. It features good physical properties, electrical insulation profile and chemical resistance even with heat exposure to 650°F. Its glass transition temperature (Tg) is 225°C. This system is also has very low exotherm upon curing and can be used in castings and encapsulations well beyond ½ inch in thickness. The minimum curing temperature for EP17HT-LO is 300°F with faster cures attainable at higher temperatures. EP17HT-LO is 100% reactive and contains no solvents or diluents. EP17HT-LO bonds well to similar as well as dissimilar substrates such as metal, ceramics, plastics and composites. It has resistance to many chemicals such as acids, bases, salts, fuels, oils and many solvents. Shrinkage upon cure is minimal. It is serviceable from -80°F to +650°F. This system is tan in color. EP17HT-LO retains its electrical insulation properties, even at higher temperatures. It should be noted, in order to obtain the optimum properties, a post cure of 2-12 hours at 350°F is recommended. As mentioned above, EP17HT-LO meets NASA low outgassing specifications. It is widely used in a variety of applications in the aerospace, oil and chemical processing, optical, opto-electronic and specialty OEM industries.

**Product Advantages:** Single component system; no mixing prior to use. Contains no solvents, diluents or volatiles Easy application; only positive contact pressure required during heat cure Good tensile, shear and compressive strength properties Certified to NASA low outgassing standards High temperature resistance. Staggering Tg Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-EP17HT-LO-One-component-epoxy-system-for-bonding-sealing-coating-and-casting.php](http://www.lookpolymers.com/polymer_Master-Bond-EP17HT-LO-One-component-epoxy-system-for-bonding-sealing-coating-and-casting.php)

Physical Properties	Metric	English	Comments
Solids Content	100 %	100 %	
Viscosity	15000 - 25000 cP	15000 - 25000 cP	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	>= 80	>= 80	
Tensile Strength at Break	68.9 MPa	10000 psi	
Tensile Modulus	2.76 - 3.10 GPa	400 - 450 ksi	
Compressive Strength	>= 138 MPa	>= 20000 psi	
Shear Strength	15.9 MPa	2300 psi	
	@Temperature 204 °C	@Temperature 400 °F	
	22.1 MPa	3200 psi	tensile lap, aluminum to aluminum
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	343 °C	650 °F	
Minimum Service Temperature, Air	-62.2 °C	-80.0 °F	
Glass Transition Temp, Tg	225 °C	437 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+12 ohm-cm	>= 1.00e+12 ohm-cm	
	@Temperature 400 °C	@Temperature 752 °F	
	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
	@Temperature 75.0 °C	@Temperature 167 °F	
Dielectric Constant	4.4	4.4	
	@Frequency 60.0 Hz, Temperature 25.0 °C	@Frequency 60.0 Hz, Temperature 77.0 °F	
	4.7	4.7	
	@Frequency 60.0 Hz, Temperature 204 °C	@Frequency 60.0 Hz, Temperature 399 °F	
Dissipation Factor	0.0080	0.0080	
	@Frequency 60.0 Hz, Temperature 25.0 °C	@Frequency 60.0 Hz, Temperature 77.0 °F	
	0.018	0.018	
	@Frequency 60.0 Hz, Temperature 204 °C	@Frequency 60.0 Hz, Temperature 399 °F	

Processing Properties	Metric	English	Comments
Cure Time	60.0 - 90.0 min	1.00 - 1.50 hour	
	@Temperature 177 °C	@Temperature 350 °F	
	90.0 - 120 min	1.50 - 2.00 hour	
	@Temperature 149 °C	@Temperature 300 °F	
	120 min	2.00 hour	plus 2-12 hrs at 350°F
	@Temperature 149 °C	@Temperature 300 °F	
Shelf Life	3.00 - 6.00 Month	3.00 - 6.00 Month	in original, unopened containers
	@Temperature 4.44 - 7.22 °C	@Temperature 40.0 - 45.0 °F	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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