

## Master Bond Supreme 11AOHTLO Epoxy Passes NASA Low Outgassing Tests

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

### Material Notes:

**Description:** Master Bond Supreme 11AOHTLO is a two component epoxy resin system for high performance bonding and sealing. Although, it is formulated to cure at room temperature, the best cure schedule to attain optimal properties, including NASA low outgassing, is overnight at room temperature followed by a few hours at 150-200°F. It has a convenient one to one mix ratio by weight or volume. Its most outstanding features include high thermal conductivity, excellent electrical insulation properties and temperature resistance up to 400°F. Supreme 11AOHTLO is a "toughened" system which enables it to withstand rigorous thermal cycling and makes it well suited for bonding dissimilar substrates. It has excellent adhesion to most metals, ceramics, and glass as well as many rubbers and plastics. Its chemical resistance profile includes water, oil and fuels. Both Parts A and B are colored off-white. Master Bond Supreme 11AOHTLO is widely used in electronic, electro-optic, aerospace and vacuum applications where high strength, excellent thermal transfer properties, and high temperature resistance are required. **Product Advantages:** Convenient one to one mix ratio by weight or volume. Versatile cure schedules: ambient or, for optimal properties, ambient combined with heat. Excellent bond strength to a wide variety of substrates. Toughened system, can withstand rigorous thermal cycling. High thermal conductivity with exceptional electrical insulation properties. Thermally stable up to 400°F with good thermal cycling properties. Exceptionally good dimensional stability. Passes NASA low outgassing. Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-Supreme-11AOHTLO-Epoxy-Passes-NASA-Low-Outgassing-Tests.php](http://www.lookpolymers.com/polymer_Master-Bond-Supreme-11AOHTLO-Epoxy-Passes-NASA-Low-Outgassing-Tests.php)

Physical Properties	Metric	English	Comments
Viscosity	200000 - 300000 cP	200000 - 300000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	>= 85	>= 85	
Tensile Modulus	>= 3.10 GPa	>= 450 ksi	
Shear Strength	>= 22.1 MPa	>= 3200 psi	Bond, Al to Al
Peel Strength	2.63 kN/m	15.0 pli	T-peel, Al to Al

Thermal Properties	Metric	English	Comments
CTE, linear	35.0 - 40.0 $\mu\text{m}/\text{m}\cdot\text{C}$	19.4 - 22.2 $\mu\text{in}/\text{in}\cdot\text{F}$	
Thermal Conductivity	1.30 - 1.44 W/m-K	9.00 - 10.0 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	204 °C	400 °F	
Minimum Service Temperature, Air	-73.3 °C	-100 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	
Dielectric Strength	>= 15.7 kV/mm @Thickness 3.17 mm	>= 400 kV/in @Thickness 0.125 in	

Processing Properties	Metric	English	Comments
Cure Time	60.0 - 120 min	1.00 - 2.00 hour	Optimum cure schedule, overnight at 75°F plus 150-200°F
	60.0 - 120 min @Temperature 93.3 °C	1.00 - 2.00 hour @Temperature 200 °F	
	1440 - 2160 min @Temperature 23.9 °C	24.0 - 36.0 hour @Temperature 75.0 °F	
Pot Life	15 - 25 min	15 - 25 min	100 gram mass
Shelf Life	6.00 Month @Temperature 23.9 °C	6.00 Month @Temperature 75.0 °F	in original unopened containers

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	1:1	

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