

Master Bond Supreme 10HTFS Silver Conductive Microelectronic Epoxy

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

Material Notes:

Description: Master Bond Polymer System Supreme 10HTFS "snap cure" epoxy is a formulated system featuring a combination of high performance properties including high shear and peel strength, outstanding electrical conductivity, easy processing, along with a very rapid "snap cure". This one component, no mix, high purity silver conductive system is formulated to cure at elevated temperatures in as little as 2 minutes at 380-400°F. A typical cure schedule is 5-10 minutes at 300°F. Minimum curing temperature is 250°F with a cure cycle of 20-30 minutes. Tensile shear strengths of 1,200 psi and T-peel strengths in excess of 5 pli are readily obtained. Supreme 10HTFS has a wide service temperature range of 4°K to 400°F enabling it to be serviceable in cryogenic applications. It also offers resistance to impact, thermal shock, vibration and stress fatigue cracking while maintaining the moisture, creep, corrosion and thermal resistance typical of epoxy resin adhesives. Supreme 10HTFS can be applied without sagging or dripping even on vertical surfaces. It is 100% reactive and does not contain any diluents or solvents although it can be made flowable by adding 5 to 10% of an appropriate solvent such as, xylene or acetone by weight. Supreme 10HTFS forms tough, highly electrically conductive bonds that are resistant to many chemicals including water, oil, fuels and most organic solvents. The excellent electrical conductivity is fully retained even upon severe thermal cycling. Adhesion to metals, glass, ceramics, vulcanized rubbers and many plastics is excellent. The cured system is also a superior thermal conductor. Supreme 10HTFS offers the convenience of no mixing prior to use, combined with an unlimited working life before implementing the heat cure. It is widely used in applications for aerospace, electrical, computer, appliance, automotive and particularly electronic industries where high performance and rapid cures are required. **Product Advantages:** Single component system; no mixing needed prior to use. Unlimited working life. Easy application; contact pressure only required during heat cure; adhesive spreads evenly and smoothly; no drip application feature. Remarkably fast "snap" cures, e.g. 5-10 minutes at 300°F or 2 minutes at 380-400°F; minimum cure is 250°F for 20-30 minutes. Bonds well to a wide variety of substrates. High shear and peel strength. Service temperature range is 4°K to 400°F. Outstanding electrically conductive properties; exceptionally low resistance. Superior resistance to thermal shock, impact, heat and chemicals. Ideally suited for demanding high speed manufacturing applications. Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-Supreme-10HTFS-Silver-Conductive-Microelectronic-Epoxy.php

Physical Properties	Metric	English	Comments
Solids Content	100 %	100 %	

Mechanical Properties	Metric	English	Comments
Shear Strength	>= 8.27 MPa	>= 1200 psi	Tensile, aluminum
Peel Strength	>= 0.877 kN/m	>= 5.00 pli	T-peel, Al to Al

Thermal Properties	Metric	English	Comments
Thermal Conductivity	>= 1.59 W/m-K	>= 11.0 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	204 °C	400 °F	

Minimum Service Temperature, Air Thermal Properties	-168 °C Metric	-270 °F English	Comments
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Electrical Properties	Metric	English	Comments
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Volume Resistivity	<= 0.0010 ohm-cm	<= 0.0010 ohm-cm	
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Processing Properties	Metric	English	Comments
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Cure Time	2.00 min	0.0333 hour	
	@Temperature 193 - 204 °C	@Temperature 380 - 400 °F	

	5.00 - 30.0 min	0.0833 - 0.500 hour	
	@Temperature 149 °C	@Temperature 300 °F	

Shelf Life	>= 3.00 Month	>= 3.00 Month	Plastic syringes
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	3.00 - 6.00 Month	3.00 - 6.00 Month	Glass jars
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Descriptive Properties	Value	Comments
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Appearance	silver	
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