

## Master Bond Supreme 3HT-80 High Strength Epoxy Adhesive Cures at 80°C

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

### Material Notes:

Description: Master Bond Supreme 3HT-80 is a one component, heat curing epoxy system featuring excellent physical strength properties and toughness with an eye-catching curing temperature of 170-175°F, well below the 250-300°F required by typical one part (non-premixed and frozen) epoxies. At 170-175°F, Supreme 3HT-80 will cure in 20-30 minutes and at 250°F it will cure in 10-15 minutes. It should be noted that optimal properties are obtained by curing at 250°F. However, a cure at the lower temperature is more than sufficient to obtain superior properties and is an attribute when working with substrates that are sensitive to higher temperatures. No mixing is required prior to use and the working life is unlimited. Unlike premixed and frozen systems which require special low temperature storage, Supreme 3HT-80 can be stored in conventional refrigerators. The shelf life of Supreme 3HT-80 when stored in a refrigerator at 40-50°F is a minimum of 3 months and a maximum of 6 months. It bonds well to a variety of substrates including metals, composites, glass, ceramics, vulcanized rubbers and many plastics. Supreme 3HT-80 forms high strength bonds in both shear and peel modes. Its toughness confers nimble thermal cycling capabilities as well as lively resistance to vibration and shock. It is 100% reactive and does not contain any diluents or solvents. Supreme 3HT-80 withstands many chemicals including water, oil and many types of fuels. The cured system is an excellent electrical insulator. It is serviceable over the wide temperature range of -100°F to +350°F. The standard color is off-white, but other colors are available. Supreme 3HT-80 is well suited to applications in the aerospace, electronic, electro-optic and specialty OEM industries, among others particularly when substrates that are more heat sensitive are being used, and the convenience of a no mix system is expedient and sensible. A non-drip version is also available called Supreme 3HT-80ND-2. Product Advantages: Single component system; no mixing needed prior to use; unlimited working life; 100% solids Atypical cure schedules; 30 minutes at 175°F, 10 minutes at 250°F High strength in the shear and peel modes Good electrical insulating properties Well suited for bonding plastics and other heat sensitive substrates. Simple storage in a refrigerator, no freezing needed. Key Features High peel and shear strengths Cures at 175°F No mix, single component system Outstanding thermal cycling capabilities Excellent adhesive properties Serviceable from -100°F to +350°F Information provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-Supreme-3HT-80-High-Strength-Epoxy-Adhesive-Cures-at-80C.php](http://www.lookpolymers.com/polymer_Master-Bond-Supreme-3HT-80-High-Strength-Epoxy-Adhesive-Cures-at-80C.php)

Physical Properties	Metric	English	Comments
Viscosity	70000 - 150000 cP	70000 - 150000 cP	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	>= 34.5 MPa	>= 5000 psi	30 minute cure at 175°F
	>= 51.7 MPa	>= 7500 psi	30 minute cure at 250°F
Shear Strength	>= 6.89 MPa	>= 1000 psi	Tensile lap, Al to Al, 30 minute cure at 175°F
	>= 12.4 MPa	>= 1800 psi	Tensile lap, Al to Al, 30 minute cure at 250°F
Peel Strength	>= 1.75 kN/m	>= 10.0 pli	T-peel, Al to Al, 30 minute cure at 175°F
	>= 3.51 kN/m	>= 20.0 pli	T-peel, Al to Al, 30 minute cure at

Mechanical Properties	Metric	English	250 °F Comments
Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	177 °C	350 °F	
Minimum Service Temperature, Air	-73.3 °C	-100 °F	
Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
Dielectric Constant	3.8 @Frequency 60.0 Hz	3.8 @Frequency 60.0 Hz	
Processing Properties	Metric	English	Comments
Cure Time	9.99996 - 15.0 min @Temperature 121 °C	0.166666 - 0.250 hour @Temperature 250 °F	
	20.000 - 30.0 min @Temperature 79.4 °C	0.333333 - 0.500 hour @Temperature 175 °F	
Shelf Life	3.00 - 6.00 Month @Temperature 4.44 - 10.0 °C	3.00 - 6.00 Month @Temperature 40.0 - 50.0 °F	in original closed containers

## Contact Songhan Plastic Technology Co.,Ltd.

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