Master Bond Supreme 10HTFL One Part Epoxy Cures at 250°F

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

Material Notes:

Description: Master Bond Polymer System Supreme 10HTFL features a blend of physical properties including outstanding peel strength, very high shear strength and a wide service temperature range of 4K to +350°F making it suitable for cryogenic applications. Supreme 10HTFL features highly desirable handling properties including no mixing and unlimited working life at room temperature. It should be noted that this one part epoxy requires a curing temperature of 250°F or above. Supreme 10HTFL has a blend of advantageous physical and mechanical properties. It is a forgiving epoxy, i.e. far less rigid than typical high temperature resistant epoxies. Supreme 10HTFL also allows for resistance to impact, thermal and mechanical shock and vibration, and is well suited for rigorous thermal cycling. The adhesive is often used when bonding substrates with different coefficients of thermal expansion. It is 100% reactive and does not contain any diluents or solvents. Master Bond Polymer System Supreme 10HTFL's chemical resistance is noteworthy, especially to water, oil, fuels and many solvents even upon prolonged exposure in hostile environments. It has excellent adhesion to metals, glass, ceramics, wood, and many rubbers and plastics. When cured, the epoxy is a very good electrical insulator. Its normal color is gray. A non-drip version called Supreme 10HTFLND-2 is available, which will not flow when cured. Master Bond Polymer System Supreme 10HTFL features high performance coupled with convenient handling making it widely used in a variety of applications in the aerospace, electronic, OEM, electrical, computer, metalworking and chemical industries. Product Advantages: Room temperature storable. Optimum shelf life obtained when refrigerated; do not freeze Versatile fast cure schedules; 75-90 minutes at 250°F; 45-60 minutes at 300°F High bond strength to similar and dissimilar substrates over the wide temperature range of 4K to over 350°F Very good electrical insulating properties Highly resistant to mechanical and thermal shock 100% reactive — no volatiles present; thixotropicKey Features High peel and shear strength Cryogenically serviceable High temperature resistant No mix, single component system Unlimited working life at room temperature Thermal cycling resistantInformation provided by MasterBond®

Order this product through the following link:
http://www.lookpolymers.com/polymer_Master-Bond-Supreme-10HTFL-One-Part-Epoxy-Cures-at-250F.php

Physical Properties	Metric	English	Comments
Solids Content	100 %	100 %	
Viscosity	350000 - 700000 cP	350000 - 700000 cP	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	45 - 65	45 - 65	
Tensile Strength at Break	>= 34.5 MPa	>= 5000 psi	
Elongation at Break	>= 50 %	>= 50 %	
Shear Strength	>= 13.8 MPa	>= 2000 psi	Tensile, Al to Al
Peel Strength	>= 7.01 kN/m	>= 40.0 pli	Tensile, Al to Al

Thermal Properties	Metric	English	Comments

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	204 °C	400 °F	
Minimum Service Temperature, Air	-168 °C	-270 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	

Processing Properties	Metric	English	Comments
Cure Time	45.0 - 60.0 min @Temperature 149 °C	0.750 - 1.00 hour @Temperature 300 °F	
	75.0 - 90.0 min @Temperature 121 °C	1.25 - 1.50 hour @Temperature 250 °F	
Shelf Life	3.00 - 6.00 Month @Temperature 23.9 °C	3.00 - 6.00 Month @Temperature 75.0 °F	in original unopened containers

Descriptive Properties	Value	Comments
Appearance	Gray	

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