

Master Bond EP45HTAO Heat Resistant Epoxy for Structural Bonding

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

Material Notes:

Description: Master Bond Polymer Compound EP45HTAO is a two component thermally conductive epoxy compound for high performance structural bonding, and casting. It is suitable for applications where long term exposure to temperatures from -60° to +500°F is required. It is 100% reactive and does not contain any solvents or diluents. It is formulated to cure rapidly at elevated temperatures. It has a convenient 100 to 30 mix ratio, by weight. It produces high strength bonds at both ambient and elevated temperatures. Master Bond EP45HTAO can be applied without sagging or dripping on vertical surfaces. It produces durable high strength and tough bonds which are remarkably resistant to thermal cycling and chemicals including water, oil and most organic solvents over the exceptionally wide temperature range of - 60°F to more than +500°F. It also produces superior seals & high quality pottings. Adhesion to metals, glass, ceramics, wood, vulcanized rubber and many plastics is excellent. The hardened compound is an electrical insulator. Color of Part A is gray, part B is gray. Master Bond EP45HTAO is widely used in aerospace, electronic, electrical, computer, construction, metal working, appliance, automotive and chemical industries where a high thermally conductive bond is desired.

Product Advantages: Convenient mixing: product properties relatively unaffected by small changes in mix ratio Easy application: contact pressure only required for cure, compound spreads evenly and smoothly; no drip application feature Convenient cure schedules: long pot life at room temperature, requires elevated temperature cure. High bonding strength to similar and dissimilar substrates Superior durability, thermal shock and chemical resistance Reactive and does not contain any solvents or diluents Resists ETO sterilization, chemical sterilants and repeated autoclaving. High thermal conductivity

Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-EP45HTAO-Heat-Resistant-Epoxy-for-Structural-Bonding.php

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	88.3 MPa	12800 psi	
Compressive Strength	>= 124 MPa	>= 18000 psi	
Shear Strength	>= 15.9 MPa	>= 2300 psi	Bond, Al to Al

Thermal Properties	Metric	English	Comments
Thermal Conductivity	1.30 - 1.44 W/m-K	9.00 - 10.0 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	260 °C	500 °F	
Minimum Service Temperature, Air	-51.1 °C	-60.0 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	

Processing Properties	Metric	English	Comments
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Processing Properties Cure Time	120 - 180 min Metric	2.00 - 3.00 hour English	Comments
	@Temperature 135 - 163 °C	@Temperature 275 - 325 °F	
Pot Life	>= 720 min	>= 720 min	200 gram batch
	>= 720 min	>= 720 min	1 quart mass
Shelf Life	6.00 Month	6.00 Month	

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	100/30	by weight

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