

Master Bond EP45HTQ Quartz Filled Heat Resistant Epoxy

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

Material Notes:

Description: Master Bond Polymer Compound EP45HTQ is a two component quartz filled, 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 EP45HTQ 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 tan, part B is tan. Master Bond EP45HTQ is widely used in aerospace, electronic, electrical, computer, construction, metal working, appliance, automotive and chemical industries.

Product Advantages: Convenient mixing: 100/30 mix ratio by weight 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 compressive strength Resistance to radiation up to 10¹⁰ rads

Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-EP45HTQ-Quartz-Filled-Heat-Resistant-Epoxy.php

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	>= 80	>= 80	
Tensile Strength at Break	>= 75.8 MPa	>= 11000 psi	
Elongation at Break	>= 5.0 %	>= 5.0 %	
Tensile Modulus	3.45 GPa	500 ksi	
Compressive Strength	>= 131 MPa	>= 19000 psi	
Shear Strength	>= 159 MPa	>= 23000 psi	Bond, Al to Al
Peel Strength	>= 2.10 kN/m	>= 12.0 pli	T-peel

Thermal Properties	Metric	English	Comments
CTE, linear	25.0 - 30.0 µm/m-°C	13.9 - 16.7 µin/in-°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
Cure Time	120 - 180 min	2.00 - 3.00 hour	
	@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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