

Master Bond MasterSil 153Med Silicone Paste for Medical Applications

Category : Polymer , Thermoset , Silicone

Material Notes:

Description: Master Bond MasterSil 153Med is a two component silicone compound with a paste consistency for high performance bonding and sealing. It can be used for medical device applications as it meets USP Class VI testing and ISO 10993-5 for cytotoxicity. MasterSil 153Med is an addition cured system and does not require exposure to air for cross-linking. It has a convenient one to one mix ratio by weight, and will not outgas while curing. It is 100% solids and contains no solvents. MasterSil 153Med exhibits typical silicone flexibility and high temperature resistance. MasterSil 153Med has a long working life and very low exotherm. It bonds well to a wide variety of substrates including most metals, many plastics, glass and ceramic. Most importantly, it will bond well to cured silicone rubber. It has good electrical insulation properties. Its flexibility allows it to withstand severe thermal cycling and resist vibration and shock. It has a self priming feature that enhances the bonding properties of the system. Also, it is very water resistant. MasterSil 153Med is translucent and is serviceable over the broad temperature range of -65°F to +400°F. It is widely used in medical device applications where high flexibility and splendid temperature resistance are required. Product Advantages: Addition cured; no by-products released during cure; does not require air for curing. Low exotherm; very long pot life. Very low shrinkage upon cure. Readily cures at ambient temperatures or faster cure at elevated temperatures. Softer durometer; offers reparability. Bonds well to a variety of substrates including silicone rubber. Self priming feature. Good electrical insulation properties; highly resistant to water. Outstanding flexibility combined with high temperature resistance. Meets USP Class VI and ISO 10993-5 specifications. Key Features Passes USP Class VI testing Addition cured system Self priming feature Meets ISO 10993-5 specifications Serviceable from -65°F to +400°F Paste consistency Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-MasterSil-153Med-Silicone-Paste-for-Medical-Applications.php

Physical Properties	Metric	English	Comments
Viscosity	>= 200000 cP	>= 200000 cP	Part B
	>= 350000 cP	>= 350000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	20 - 35	20 - 35	
Tensile Strength at Break	2.76 - 3.45 MPa	400 - 500 psi	
Elongation at Break	400 - 500 %	400 - 500 %	
Shear Strength	>= 1.38 MPa	>= 200 psi	Tensile lap, Al to Al

Thermal Properties	Metric	English	Comments
CTE, linear	350 - 400 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	194 - 222 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
Maximum Service Temperature, Air	204 $^\circ\text{C}$	400 $^\circ\text{F}$	
Minimum Service Temperature, Air	-53.9 $^\circ\text{C}$	-65.0 $^\circ\text{F}$	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	
Dielectric Constant	2.9 @Frequency 1.00e+6 Hz, Temperature 25.0 °C	2.9 @Frequency 1.00e+6 Hz, Temperature 77.0 °F	
Dielectric Strength	17.7 kV/mm @Thickness 3.17 mm	450 kV/in @Thickness 0.125 in	

Processing Properties	Metric	English	Comments
Cure Time	120 - 180 min @Temperature 93.3 °C	2.00 - 3.00 hour @Temperature 200 °F	
Pot Life	2880 - 4320 min @Temperature 23.9 °C	48.0 - 72.0 hour @Temperature 75.0 °F	
Shelf Life	5.0 - 7.0 min	5.0 - 7.0 min	100 gram batch
	6.00 Month @Temperature 23.9 °C	6.00 Month @Temperature 75.0 °F	in original unopened containers

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	1:1	by weight

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