

## Master Bond MasterSil 151Med Medical Grade Silicone Potting Compound

Category : Polymer , Thermoset , Silicone

**Material Notes:**

**Description:** Master Bond MasterSil 151Med is a two component, low viscosity silicone compound for high performance potting and encapsulation. MasterSil 151Med is an addition cured system and does not require exposure to air for complete cross-linking. It has a convenient ten to one mix ratio by weight, and will not outgas while curing. It is 100% solids and contains no solvents. MasterSil 151Med has an exceptionally low viscosity enabling it to be highly desirable for potting and encapsulation. First and foremost, MasterSil 151Med, as is true with silicones in general, offers flexibility and high temperature resistance. It has good electrical insulation properties. The system's flexibility allows it to withstand severe thermal cycling and resist vibration and shock. MasterSil 151Med resists gamma radiation, ETO and various chemical sterilants. These properties enable this system to be well suited for medical applications involving optical and electrical components. It can also be used for encapsulating electronic circuitry, LEDs, optical fibers and other optical components in a wide array of medical devices. MasterSil 151Med is transparent and has a service temperature range of -65°F to +400°F. It fully passes USP Class VI testing for biocompatibility. **Product Advantages:** Addition cured; no by-products released during cure; does not require air for curing Low exotherm; very long pot life; low viscosity ideal for potting and encapsulation Readily cures at ambient temperatures or faster cure at elevated temperatures Can cure in thicknesses beyond 1 inch Very low shrinkage upon cure Excellent optical clarity and transmission properties Meets USP Class VI specification Good electrical insulation properties; highly resistant to water **Key Features** Meets USP Class VI specifications High flexibility Optically clear Serviceable from -65°F to +400°F Electrically insulative Low viscosity **Information provided by MasterBond®**

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-MasterSil-151Med-Medical-Grade-Silicone-Potting-Compound.php](http://www.lookpolymers.com/polymer_Master-Bond-MasterSil-151Med-Medical-Grade-Silicone-Potting-Compound.php)

Physical Properties	Metric	English	Comments
Viscosity	50 - 150 cP	50 - 150 cP	Part B
	2000 - 4000 cP	2000 - 4000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	40 - 50	40 - 50	
Tensile Strength at Break	5.52 - 6.21 MPa	800 - 900 psi	
Elongation at Break	120 - 150 %	120 - 150 %	
Shear Strength	>= 0.345 MPa	>= 50.0 psi	Bond, Al to Al

Thermal Properties	Metric	English	Comments
CTE, linear	220 - 240 $\mu\text{m}/\text{m}\cdot\text{°C}$	122 - 133 $\mu\text{in}/\text{in}\cdot\text{°F}$	
Maximum Service Temperature, Air	204 °C	400 °F	
Minimum Service Temperature, Air	-53.9 °C	-65.0 °F	

Optical Properties	Metric	English	Comments
Refractive Index	1.43	1.43	
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	
Dielectric Constant	2.7 @Frequency 100 Hz, Temperature 25.0 °C	2.7 @Frequency 100 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	60.0 - 120 min @Temperature 93.3 °C	1.00 - 2.00 hour @Temperature 200 °F	
	1440 - 2880 min @Temperature 23.9 °C	24.0 - 48.0 hour @Temperature 75.0 °F	
Pot Life	2.0 - 4.0 min	2.0 - 4.0 min	100 gram batch
Shelf Life	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)	100:1	by weight

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China