

## Master Bond MasterSil 156 Two Part, Low Viscosity Silicone

Category : Polymer , Thermoset , Silicone

### Material Notes:

**Description:** Master Bond MasterSil 156 is a two component, lower viscosity silicone system for high performance potting, encapsulation and sealing. MasterSil 156 combines high temperature resistance, commendable flexibility and appealing thermal conductivity along with meeting UL 94V-0 for flame retardancy. MasterSil 156 is an addition cured system and does not require exposure to air for complete 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 156 has a lower viscosity and excellent flow properties enabling it to be well suited for potting and encapsulation. Additionally, the electrical insulation properties are good and it still is a reputable thermal conductor. It bonds well to a wide variety of substrates including metals, composites, glass, ceramics and many rubbers and plastics. Its flexibility allows it to withstand severe thermal cycling and resist vibration and shock. Also, it is very resistant to water, humidity, oils and environmental elements. The system is rated to 105°C by UL in thicknesses up to 1/4 inch and above, and it is listed as 94V-0 for flame retardancy. It can cure in thicknesses well beyond 1-2 inches if required. MasterSil 156 is a system that combines flexibility, high temperature resistance, heat dissipation and flame retardancy. Product

**Advantages:** Convenient one to one by weight mix ratio Addition cured; virtually no by-products released during curing; does not require air Favorable electrical insulation and thermal conduction properties Lower viscosity and splendid flow; ideal for potting and encapsulation Very low shrinkage upon cure UL flame retardant 94V-0 ratingKey Features Good thermal conductivity Good electrical insulation properties Flame retardant UL 94V-0 Low exotherm; very long pot life Can cure in thicknesses up to and beyond 1-2 inches UL temperature rated up to 105°CInformation provided by MasterBond®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Master-Bond-MasterSil-156-Two-Part-Low-Viscosity-Silicone.php](http://www.lookpolymers.com/polymer_Master-Bond-MasterSil-156-Two-Part-Low-Viscosity-Silicone.php)

Physical Properties	Metric	English	Comments
Viscosity	8000 - 12000 cP	8000 - 12000 cP	Part B
	15000 - 25000 cP	15000 - 25000 cP	Part A

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	50 - 60	50 - 60	
Tensile Strength at Break	2.07 - 2.76 MPa	300 - 400 psi	
Elongation at Break	120 - 150 %	120 - 150 %	
Shear Strength	>= 1.24 MPa	>= 180 psi	Tensile lap, Al to Al

Thermal Properties	Metric	English	Comments
CTE, linear	110 - 140 µm/m-°C	61.1 - 77.8 µin/in-°F	
Thermal Conductivity	1.15 - 1.30 W/m-K	8.00 - 9.00 BTU-in/hr-ft²-°F	
Maximum Service Temperature, Air	105 °C	221 °F	

Thermal Properties	Metric	English	Comments
Minimum Service Temperature, Air	-63.9 °C	-80.0 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00 \times 10^{14}$ ohm-cm	$\geq 1.00 \times 10^{14}$ ohm-cm	
Dielectric Constant	3.9 @Frequency 60.0 Hz, Temperature 25.0 °C	3.9 @Frequency 60.0 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	
	2880 - 4320 min @Temperature 23.9 °C	48.0 - 72.0 hour @Temperature 75.0 °F	
Pot Life	1.0 - 3.0 min	1.0 - 3.0 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)	1:1	by weight

## Contact Songhan Plastic Technology Co.,Ltd.

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