

Lord Adhesives Thermoset, SC-303 Silicone Encapsulant, Flame Retardant

Category : Polymer , Thermoset , Silicone , Silicone, RTV, Encapsulation Grade

Material Notes:

Lord SC-303 is a two component silicone elastomer that provides excellent thermal conductivity, while retaining the other desirable properties associated with silicones. It is a low viscosity, easily pourable liquid that is ideally suited for electrical/electronic potting applications. It has excellent high heat performance, thermal shock resistance, and improved coefficient of expansion. Lord SC-303 has been formulated for flame retardancy and is an Underwriters Laboratories recognized material under the Components-Plastics classification as 94V-0 at 0.250 inches. Lord SC-303 resin is white and the hardener is gray. These colors act as mix indicators. When thoroughly mixed, SC-303 is lighter gray. Lord SC-303 is addition curing. It will not depolymerize when heated in confined spaces as do many condensation curing silicones. As with all silicones, SC-303 generates no exotherm as it cures. It also exhibits low shrinkage and stress on components as it cures. Lord SC-303's cure may be accelerated with elevated temperature. All information provided by Lord.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lord-Adhesives-Thermoset-SC-303-Silicone-Encapsulant-Flame-Retardant.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.10 g/cc	2.10 g/cc	STM 2
Water Absorption	0.050 %	0.050 %	ASTM D570-81
Viscosity	7000 cP @Temperature 25.0 °C	7000 cP @Temperature 77.0 °F	STM 1

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	45	45	ASTM D2240
Tensile Strength, Yield	1.17 MPa	170 psi	ASTM D412
Elongation at Yield	90 %	90 %	ASTM D412

Thermal Properties	Metric	English	Comments
CTE, linear	163.33 µm/m-°C	90.739 µin/in-°F	Calculated from Volume CTE; ASTM D864
Thermal Conductivity	0.800 W/m-K	5.55 BTU-in/hr-ft²-°F	Hot Disc Transient Method
Maximum Service Temperature, Air	200 °C	392 °F	
Minimum Service Temperature, Air	-40.0 °C	-40.0 °F	
Flammability, UL94	V-0	V-0	0.250 inch minimum thickness

Electrical Properties	Metric	English	Comments
Volume Resistivity	3.80e+15 ohm-cm	3.80e+15 ohm-cm	ASTM D257
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	
Dielectric Constant	4.2	4.2	ASTM D150
	@Frequency 1.00e+6 Hz, Temperature 25.0 Å°C	@Frequency 1.00e+6 Hz, Temperature 77.0 Å°F	
Dielectric Strength	17.3 kV/mm	440 kV/in	ASTM D149
Dissipation Factor	0.00040	0.00040	ASTM D150
	@Frequency 1.00e+6 Hz, Temperature 25.0 Å°C	@Frequency 1.00e+6 Hz, Temperature 77.0 Å°F	

Processing Properties	Metric	English	Comments
Cure Time	10.0 - 15.0 min	0.167 - 0.250 hour	
	@Temperature 100 Å°C	@Temperature 212 Å°F	
	25.0 - 30.0 min	0.417 - 0.500 hour	
	@Temperature 70.0 Å°C	@Temperature 158 Å°F	
	1440 min	24.0 hour	
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	
Pot Life	50 min	50 min	100 grams
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	
Shelf Life	9.00 Month	9.00 Month	
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	

Descriptive Properties	Value	Comments
Appearance	Gray	Hardener
	Light Gray	Mixed
	White	Resin
Mix Ratio	1:1	by weight, by volume

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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