

Arlon Thermabond® R37623X008 0.0050" Cured Silicone Rubber with Fiberglass Substrate

Category : Polymer , Thermoset , Silicone , Silicone, Molded, Glass Fiber Filled

Material Notes:

Thermabond®: Electrically insulating, thermally conductive, thermal interface material (TIM) Design/Construction: Side 1: Cured Silicone Rubber Substrate: 1080-style Fiberglass Side 2: Cured Silicone Rubber Liner: 1.5 mil Polyethylene This data represents typical values for the production material and should not be used as material specifications. Information provided by ARLON Silicone Technologies Division.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Arlon-Thermabond-R37623X008-00050-Cured-Silicone-Rubber-with-Fiberglass-Substrate.php

Physical Properties	Metric	English	Comments
Density	2.80 g/cc	0.101 lb/in ³	Silicone Property; Arlon SQA-TMS-024
Thickness	63.5 microns	2.50 mil	Side 1; Arlon SQA-TMS-003
	63.5 microns	2.50 mil	Side 2; Arlon SQA-TMS-003
	76.2 microns	3.00 mil	Substrate; Arlon SQA-TMS-003
	127 microns	5.00 mil	Overall silicone thickness; Arlon SQA-TMS-003

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	77	77	Silicone Property; ASTM D2240
Tensile Strength	4.72 MPa	685 psi	Silicone Property; ASTM D412
Tensile Strength, Yield	24.5 MPa	3550 psi	Silicone Property; Arlon SQA-TMS-008
	@Strain <=1.00 %	@Strain <=1.00 %	
Elongation at Break	125 %	125 %	Silicone Property; ASTM D412
Poissons Ratio	0.50	0.50	

Thermal Properties	Metric	English	Comments
CTE, linear	105 µm/m-°C	58.3 µin/in-°F	Silicone Property; ASTM E831
	@Temperature 20.0 - 160 °C	@Temperature 68.0 - 320 °F	
Specific Heat Capacity	0.820 J/g-°C	0.196 BTU/lb-°F	Silicone Property; Arlon SQA-TMS-052
	@Temperature 100 °C	@Temperature 212 °F	
Thermal Conductivity	1.40 W/m-K	9.72 BTU-in/hr-ft ² -°F	Silicone Property; ASTM E1530

Maximum Service Temperature, Inert Thermal Properties	204 °C Metric	399 °F English	Comments
Minimum Service Temperature, Air	-100 °C	-148 °F	
Glass Transition Temp, Tg	-118 °C	-180 °F	Silicone Property; ASTM D3418

Electrical Properties	Metric	English	Comments
Dielectric Constant	6.91	6.91	Silicone Property; IPC TM 650 - 2.5.5.3
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	25.2 kV/mm	640 kV/in	ASTM D149
Dissipation Factor	0.0044	0.0044	Silicone Property; IPC TM 650 - 2.5.5.3
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Processing Properties	Metric	English	Comments
Shelf Life	60.0 Month	60.0 Month	
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Descriptive Properties	Value	Comments
Color	Gray	Product
	Naturally white	Substrate
Plasticity (mm)	2.3	Arlon SQA-TMS-005; Silicone Property
Thermal Impedance (°C/W)	0.26	Product Property; ASTM D5470
Thermal Resistance (°C-in2/W)	0.186	Product Property at 50C 3MPa; Arlon SQA-TMS-054
Total Product Weight (oz/yd2)	12.7	Arlon SQA-TMS-025

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