# NuSil EPM-2493

# Silicone

# **NuSil Technology**

#### Message:

As a low stress alternative for electronic packaging, NuSil Technology's silicones allow the designer to choose from a unique line of silicones for various levels of packaging. We have an extensive line of encapsulants, adhesives, and greases to choose from. These include thermally and electrically conductive silicones for Thermal Interface Materials (TIM) or for EMI and RFI shielding applications.

Benefits of Silicone for Electronics:

Wide Operating Temperature Range of -115 °C to 250 °C

Low moisture absorption, < 0.4% Typical

Corrosion Resistance

High Dielectric Strength > 500 V/mil (0.001 inch) or 20 kV/mm

Fillers can be added to provide thermal and electrical conductive properties

Low Modulus (Typically less than 5.5 MPa/800 psi)

Stable chemical and mechanical properties when exposed to high temperatures

Low Shrinkage

Available as gels, elastomers, film adhesives sheeting, and greases

General Purpose: Thermal Interface Materials (TIMs)

Comments: 1.0 W/m-K. BLT 25 µn, Al filled. Available as I Part

General Information				
Filler / Reinforcement	Aluminum			
Features	Good Corrosion Resistance			
	Good Thermal Stability			
	Low Moisture Absorption			
	Low Shrinkage			
	Thermally Conductive			
Uses	Electrical/Electronic Applications			
Thermal	Nominal Value	Unit	Test Method	
CLTE - Flow	1.5E-4	cm/cm/°C		
Thermal Conductivity	1.0	W/m/K	ASTM E1530	
Thermoset	Nominal Value	Unit		
Thermoset Components				
Part A	Mix Ratio by Weight: 1.0			
Part B	Mix Ratio by Weight: 1.0			
Additional Information	Nominal Value	Unit		
Cure System	Platinum			
Ionic Content				
Cl	< 11	ppm		
K	< 3	ppm		
Na	< 8	ppm		
Operating Temperature	-65 to 250	°C		
Uncured Properties	Nominal Value	Unit		
Color	White			

Density	2.42	g/cm³	
Viscosity			
1	36	Pa·s	
<sup>2</sup>	37	Pa·s	
Curing Time (150°C)	0.25	hr	
Pot Life	300	min	
Cured Properties	Nominal Value	Unit	
Shore Hardness (Shore A)	55		
Lap Shear Strength <sup>3</sup>	0.758	MPa	
Tensile Strength	0.862	MPa	
Tensile Elongation at Break	50	%	
Tear Strength	4.38	kN/m	
NOTE			
1.	Part B		
2.	Part A		
3.	Primed with SP-270		

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