EPM-2421

Low volatility silicone elastomer

DESCRIPTION

- Two-part, clear silicone system
- Offers low modulus and low viscosity
- 1:1 Mix Ratio (Part A: Part B)

APPLICATION

- For applications requiring low volatility and high purity
- Designed for protection of electrical components and assemblies against shock, vibration, moisture, dust, chemicals, and other environmental hazards
- Ideal for applications in which clarity and low viscosity are important

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance	Transparent	ASTM D2090	002
Viscosity, Part A	3,750 cP (3,750 mPas)	ASTM D1084, D2196	001
Viscosity, Part B	2,700 cP (2,700 mPas)	ASTM D1084, D2196	001
Work Time	3 hours	-	008
Tack-Free Time	5 hours	ASTM C679	005
Cured: 15 minutes at 150°C (302°F)			
Specific Gravity	1.02	ASTM D792	003
Durometer, Type A	50	ASTM D2240	006
Tensile Strength	850 psi (5.9 MPa)	ASTM D412	007
Elongation	90%	ASTM D412	007
Lap Shear Strength primed with CF1-135	250 psi (1.73 MPa)	ASTM D1002	010
Volatile Content (1 hour at 275°C)*	0.7%	ASTM D2288	004
Volume Resistivity*	8.5 X 10 exp^{14}	ASTM D257	153
Dielectric Strength*	610 V/mil (24.0 kV/mm)	ASTM D149	-
Dielectric Constant, 100 Hz*	2.8	ASTM D150, D924	906

Typical Properties	Average Result	Standard	NT-TM
Dielectric Constant, 1 kHz*	2.8	ASTM D150, D924	906
Loss Tangent, 100 Hz*	0.0003	ASTM D150, D924	906
Loss Tangent, 1 kHz*	0.0004	ASTM D150, D924	906
Coefficient of Linear Expansion (-150°C to -170°C)*	87 µm/(m°C)	ASTM E831	-
Coefficient of Linear Expansion (-70°C to 200°C)*	297 µm/(m°C)	ASTM E831	-
Glass Transition Temperature (Tg)*	-116°C (-176.8°F)	ASTM D3418	-
Ionic Content, Na *	<6 ppm	MIL-STD-883	-
Ionic Content, K *	<3 ppm	MIL-STD-883	-
Ionic Content, Cl *	<6 ppm	MIL-STD-883	-

*The above properties NOT are tested on a lot-to-lot basis. Do not use as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications

INSTRUCTIONS FOR USE

Mixing and Vacuum Deaeration

Combine Part A and Part B in a 1:1 mix ratio prior to use. Airless mixing, metering or dispensing equipment is recommended for production operations. If mixing by hand, take care to minimize air entrapment.

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all applicable safety precautions. Slowly apply full vacuum to a suitable container of at least four times the volume of material being de-aired. Hold vacuum until bulk deaeration is complete. For further information please see Mixing and De airing Addition Cure Silicones.

Substrate Considerations

EPM-2421 cures in contact with most materials common to electronic assembles. Exceptions include butyl and chlorinated rubbers, some Tin condensation cure silicones and unreacted residues of some curing agents. Units being encapsulated or potted should be clean and free of surface contaminates. Containers and dispensers being used should also be clean and dry. Cure inhibition can usually be prevented by washing all containers with solvent or volatizing the contaminant by heating. For further information please see Avoiding Cure Inhibition.

Note: Some bonding application may require the use of a primer. NuSil Technology's CF1-135 silicone primer is recommended. For further information please see Choosing a Silicone Primer / Adhesive System for Engineering Applications.

Packaging	Warranty
50 mL Side-by-Side Kit 50 Gram Kit 100 Gram Kit 400 mL Side-by-Side Kit 500 Gram Kit	12 Months

ROHS AND REACH COMPLIANCE

Please contact NuSil Technology's Regulatory Compliance department with any questions or for further assistance

SPECIFICATIONS

Do not use the properties shown in this technical profile as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC (hereinafter "NuSil Technology") is 12 months from the date of

shipment when stored below 40°C in original unopened containers. Unless NuSil Technology provides a specific written warranty of fitness for a particular use, NuSil Technology's sole warranty is that the product will meet NuSil Technology's then current specification. NuSil Technology specifically disclaims all other expressed or implied warranties, including, but not limited to, warranties of merchantability and fitness for use. The exclusive remedy and NuSil Technology's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. NuSil Technology expressly disclaims any liability for incidental or consequential damages.

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NuSil Technology has tested this material only to determine if the product meets the applicable specifications. (Please contact NuSil Technology for assistance and recommendations when establishing specifications.) When considering the use of NuSil Technology products in a particular application, review the latest Material Safety Data Sheet and contact NuSil Technology with any questions about product safety information.

Do not use any chemical in a food, drug, cosmetic, or medical application or process until having determined the safety and legality of the use. The user is responsible to meet the requirements of the U.S. Food and Drug Administration (FDA) and any other regulatory agencies. Before handling any other materials mentioned in the text, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.

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