

NuSil Technology

1050 Cindy Lane • Carpinteria, CA 93013

805/684-8780 • 805/566-9905 Fax

www.nusil.com

An ISO 9001 Certified Company

CV-2943

Thermally Conductive, Controlled Volatility RTV Silicone

Product Profile

Description

- Two-part, gray, thermally conductive RTV silicone
- Based on a diphenyl dimethyl silicone copolymer for extreme temperature service
- 100:0.2 Mix Ratio (Base: Catalyst)

Applications

- For applications requiring low outgassing and minimal volatile condensables under extreme operating conditions to avoid condensation in sensitive devices
- To provide moderate heat transfer between electrical/electronic components and their heat sinks
- Use to adhere openings in modules or housings where grooves and other configurations require a limited flow material

Typical Properties

	Result	Metric Conv.	ASTM	NT-TM
Uncured:				
Appearance	Gray	-	D2090	002
Consistency	Paste	-	-	-
Work Time	2 hours	-	-	008
Cured: 7 days @ ambient temp. and humidity				
Specific Gravity	2.55	-	D792	003
Durometer, Type A	90	-	D-2240	006
Tensile Strength	750 psi	5.2 MPa	D412, D882	007
Elongation	40%	-	D412, D882	007
Tear Strength	95 ppi	16.6 kN/m	D624	009
Lap Shear Strength (primed w/ SP-130)	500 psi	3.4 MPa	D1002	010
Thermal Conductivity	0.84 W/mK	20 x 10 ⁽⁻⁴⁾ cal/cm-sec-C	C177	101
Coefficient of Linear Thermal Expansion				
Below Tg (-150 to -115°C)	30 ppm/°C	30 μm/m/°C	D3386	-
Above Tg (-95 to 250°C)	130 ppm/°C	130 μm/m/°C	D3386	-
Collected Volatile Condensable Material (CVCM)	0.03%	-	E 595	072
Total Mass Loss (TML)	0.25%	-	E 595	072
Operating Temperature Range	-178°F to 500°F	-115°C to 260°C	-	-

Instructions for Use

Mixing

Thoroughly stir base prior to weighing for curing agent addition as the product separates. Mix 0.2% by weight curing agent to the base just prior to use.

Caution: Curing agent may cause skin irritation. In case of eye contact, irrigate with water immediately and get medical attention. (Standard curing agent is Dibutyl Tin Dilaurate.)

Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all safety precautions. Slowly apply full vacuum to a container rated for use and at least four times the volume of material being deaerated. Hold vacuum until bulk deaeration is complete.

Note: Some bonding applications may require the use of a primer. NuSil Technology SP-130 silicone primer is recommended.

Packaging

100 Gram Kit
250 Gram Kit
500 Gram Kit
1 Kilogram Kit

Warranty

6 Months

Warnings About Product Safety

NuSil Technology believes that the information and data contained herein are accurate and reliable. However, the user is responsible to determine the material's suitability and safety of use. NuSil Technology cannot know each application's specific requirements and hereby notifies the user that it has not tested or determined this material's suitability or safety for use in any application. The user is responsible to adequately test and determine the safety and suitability for their application and NuSil Technology makes no warranty concerning fitness for any use or purpose. NuSil Technology has completed no testing to establish safety of use in any medical application.

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 Sheets 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, obtain available product safety information and take the necessary steps to ensure safety of use.

Specifications

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

Patent Warning

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Warranty Information

NuSil Technology's warranty period is 6 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 any other expressed or implied warranty, including 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.