NuSil SILICONE TECHNOLOGY
Creative Partners in a Material World

NuSil Technology
1050 Cindy Lane • Carpinteria, CA 93013
805/684-8780 • 805/566-9905 Fax
www.nusil.com

An ISO 9001 Certified Company

CV-2568

Controlled Volatility RTV Silicone

Product Profile

Description

- A low density, two-part, red, thixotropic RTV silicone
- Based on a diphenyl dimethyl silicone copolymer with a broad temperature range
- Mix 0.5% by weight of catalyst to base

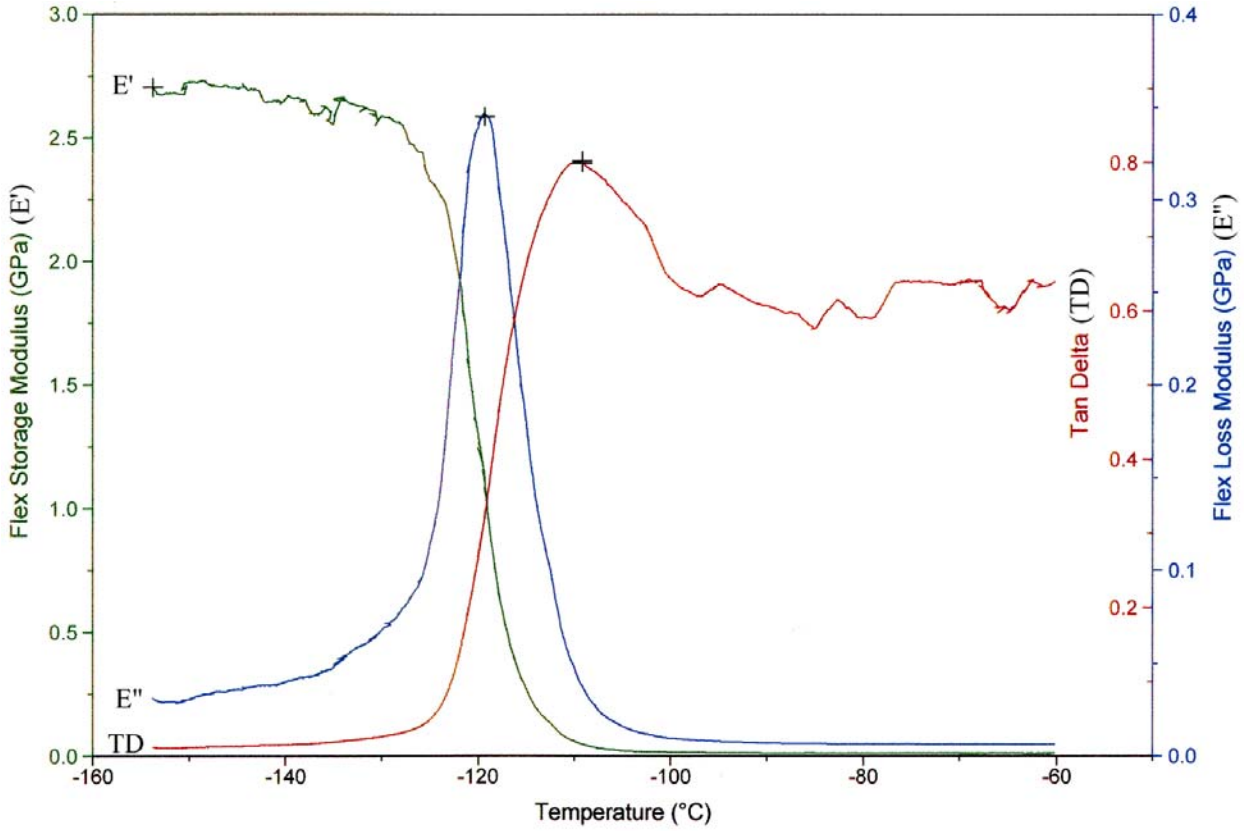
Applications

- For applications requiring low outgassing and minimal volatile condensables under extreme operating conditions to avoid condensation in sensitive devices
- As a bonding, sealing, or potting material in electronic and space applications
- Provides radiation resistance, low thermal conductivity, oxidation stability, thermal stability and good ablative characteristics
- Especially useful to bond solar cells to solar array panels

Typical Properties	Result	Metric Conv.	ASTM	NT-TM
Uncured:				
Appearance	Red	-	D2090	002
Viscosity, Base	135,000 cP	135,000 mPas	D1084, D2196	001
Cured: 7 days @ 25°C (77°F), 50% R.H.				
Specific Gravity	0.64	-	D792	003
Durometer, Type A	50	-	D2240	006
Tensile Strength	175 psi	1.2 MPa	D412, D882	007
Elongation	50%	-	D412, D882	007
Lap Shear Strength (primed w/ SP-120)	115 psi	0.8 MPa	D1002	010
Young's Modulus	1,500 psi	10.3 MPa	-	007
Dielectric Strength	645 volts/mil	25.4 kV/mm	D149	-
Volume Resistivity	1 x 10^{15}	-	D257	040
Coefficient of Linear Thermal Expansion (CTE)				
Below Tg (-150° to –115°C)	70 ppm/°C	70 ∝m/m/°C	D3386	-
Above Tg (-95°C to 250°C)	180 ppm/°C	180 ∝m/m/°C	D3386	-
Collected Volatile Condensable Material (CVCM)	0.03%	-	E 595	072
Total Mass Loss (TML)	0.30%	-	E 595	072
Service Temperature Range	-178°F to 465°F	-115°C to 240°C	-	-

Dynamic Mechanical Analysis (DMA) ASTM D4065

	Tg	Initial E'	Final E' (Gpa)	Tan Delta above Tg
CV-2568	-120°C	2.5 Gpa	0.007 Gpa	0.6 - 0.8



Instructions for Use

Mixing
Stir base prior to catalyst addition. Thoroughly mix 0.5% by weight of catalyst to base. Use of a pipette is recommended for dispensing small amounts of the catalyst.

Caution: The catalyst may cause skin irritation. In case of eye contact, irrigate with water immediately and seek medical attention.

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 the material being deaerated. Hold vacuum until bulk dearation is complete.

Note: Some bonding applications may require the use of a primer. NuSil Technology SP-120 silicone primer is recommended.

Packaging

50 Gram Kit
100 Gram Kit
250 Gram Kit
500 Gram Kit

Warranty

6 Months

Adjustable Cure Schedule
Product cures at room temperature and a wide range of elevated temperatures and cure times to accommodate different production needs. Contact NuSil Technology for details. Some cure schedules* include:

65°C (149°F)	100°C (212°F)
>48 hours	2 hours

* Cure time defined as the time required for a knife coat layer ~0.02" to be removed from a release liner

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

NuSil Technology disclaims any expressed or implied warranty against the infringement of any patent. NuSil Technology does not warrant the use or sale of the products described herein will not infringe the claims of any United States' or other country's patents covering the product itself, its use in combination with other products or its use in the operation of any process.

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.