

CV-2964

Thermally Conductive, Low Viscosity, Controlled Volatility Silicone

Product Profile

Description

- Two-part, white, thermally conductive, low viscosity silicone elastomer
- Based on a diphenyl dimethyl silicone copolymer with a broad temperature range
- Cures with the addition of heat
- 1:1 Mix Ratio (Part A : Part B)

Applications

- For applications requiring low outgassing and minimal volatile condensables under extreme operating conditions to avoid condensation in sensitive devices
- To provide heat transfer between electrical/electronic components and their heat sinks
- Use to adhere integrated circuit substrates, base plates, heat sinks or where grooves or other configurations require a non-flowable to limited flow material

Typical Properties	Result	Metric Conv.	ASTM	NT-TM
Uncured:				
Appearance	White	-	D2090	002
Viscosity, Part A	37,000 cP	37,000 mPas	D1084, D2196	001
Viscosity, Part B	36,000 cP	36,000 mPas	D1084, D2196	001
Work Time	5 hours	-	-	008
Tack-Free Time	10 hours	-	C679-87	005
Cured: 15 minutes @ 150°C (328°F)				
Specific Gravity	2.4	-	D792	003
Durometer, Type A	60	-	D2240	006
Tensile Strength	175 psi	1.21 Mpa	D412	007
Elongation	45%	-	D412	007
Tear Strength	30 ppi	5.3 kN/m	D624	009
Lap Shear Strength (primed w/ SP-270)	110 psi	0.76 Mpa	D1002	010
Thermal Conductivity	1.03 W/mK	25 x 10 ⁽⁻⁴⁾ cal/cm-sec-C	C177	101
Coefficient of Linear Thermal Expansion (-80 – 250°C)	146 ppm/°C	-	-	-
Collected Volatile Condensable Material (CVCM)	< 0.01%	-	E595	072
Total Mass Loss (TML)	0.03%	-	E595	072
Operating Temperature Range	-175°F to 500°F	-115°C to 260°C	-	-

Instructions for Use

Handling Considerations

To minimize settling of fillers and ensure optimal performance, store side-by-side kits on their sides.

Mixing

Thoroughly mix Part A and Part B in a 1:1 ratio by weight. Take care should to minimize air entrapment during mixing.

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.

Packaging

50 ml SxS Kit
 50 gram Kit
 200 gram Kit
 500 gram Kit

Warranty

6 Months

Substrate Considerations

Cures in contact with most materials. Exceptions include butyl and chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents.

Note: Some bonding applications may require the use of a primer. NuSil Technology SP-270 silicone primer is recommended.

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.