

CV-2187

Controlled Volatility Silicone Elastomer

Product Profile

Description

- Two-part, translucent, pourable silicone system
- 10:1 Mix Ratio (Part A:B)
- Based on a dimethyl silicone polymer
- Offers a high tear strength, good physical properties

Applications

- For applications requiring low outgassing and minimal volatile condensables under extreme operating conditions
- To provide protection of electric components and assemblies against shock, vibration, moisture, dust, chemicals and other environmental hazards
- Ideal for use in potting connectors, cable harness breakouts, molded high-voltage terminals, seals and gaskets due to a high tear strength.

Typical Properties

	Result	Metric Conv.	ASTM	NT-TM
Uncured:				
Chemical Classification	VMQ	-	-	-
Color	Translucent	-	-	-
Viscosity (Base)	100,000 cP	1000,000 mPas	D-1084, D-2196	001
Viscosity (Curing Agent)	5,000 cP	5,000 mPas	D-1084, D-2196	001
Work Time	1.5 hours	-	-	008
Tack Free Time	10 hours	-	C-679	005
Cured: 15 min @ 150°C (302°F)				
Specific Gravity @ 25°C (77°F)	1.10	-	D-792	003
Durometer, Type A	35	-	D-412, D-882	007
Tensile Strength	850 psi	5.9 Mpa	D-412, D-882	007
Elongation	400%	-	D-412, D-882	007
Tear Strength	55 ppi	9.6 kN/m	D-624	009
Dielectric Strength	500 volts/mil	19.7 kV/mm	D-149	-
Volume Resistivity	1x10 ¹⁵	-	D-257	040
Collected Volatile Condensable Material (CVCM)	0.01%	-	E 595	072
Total Mass Loss (TML)	0.20%	-	E 595	072
Operating Temperature Range	-85°F to 450°F	-65°C to 232°C	-	-

Instructions for Use

Mixing

Thoroughly mix base and curing agent in a 10:1 mix ratio by weight prior to use.

Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all applicable 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 deaeration is complete.

Substrate Considerations

Cures in contact with most materials common to electronic assemblies. Exceptions include butyl and chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents. Units being encapsulated or potted should be clean and free of surface contaminants. Containers and dispensers being used should also be clean and dry. Cure inhibition can usually be prevented by washing all containers with solvent or volatilizing the contaminant by heating.

Packaging

50 Gram Kit
 100 Gram Kit
 500 Gram Kit

Warranty

6 Months

Note: Some bonding applications may require the use of a primer. NuSil Technology CF1-135 silicone primer is recommended.

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.

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.