CV90-1142

Non-corrosive, controlled volatility, RTV silicone dispersion

DESCRIPTION

- Two-Part, translucent silicone RTV dispersed in tert-butyl acetate
- High temperature stability

Meets or exceeds the ASTM E 595 low outgas specifications outlined in NASA SP-R-0022A and European Space Agency PSS-014-702, with a TML of ≤1% and CVCM of ≤0.1%

APPLICATION

- Designed for spraying, dip casting, and RTV curing of thin, elastomeric films
- Slight addition of heat will accelerate cure
- For applications requiring extreme low temperature, low outgassing and minimal volatile condensables under extreme operating conditions
- For applications requiring a broader operating temperature range

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance	Translucent	ASTM D2090	002
Part A Extrusion Rate (Performed using a cylindrical 1" x 1/8" nozzle and 20 psi air pressure)	35 g/min	ASTM C603	033
Zahn Cup Viscosity tested after dispersion	20 seconds	ASTM D1084	096
Cured: 72 hrs minimum at ambient temperature and humidity			
Specific Gravity	1.10	ASTM D792	003
Durometer, Type A	38	ASTM D2240	006
Tensile Strength	650 psi (4.5 MPa)	ASTM D412	007
Elongation	250%	ASTM D412	007
Dielectric Strength	1,100 volts/mil (43.3 kV/mm)	-	-

Version uploaded 07/04/2026

Typical Properties	Average Result	Standard	NT-TM
Coefficient of Linear Thermal Expansion			
-150°C to -115°C	90 (µm/(m°C))	ASTM D3386	-
-95°C to 250°C	320 (µm/(m°C))	ASTM D3386	-
Collected Volatile Condensable Material (CVCM)	0.04%	ASTM E595	072
Total Mass Loss (TML)	0.36%	ASTM E595	072
Cured: 10 days at ambient temp. and humidity			
Lap Shear Strength (Unprimed)	200 psi (1.4 MPa)	ASTM D1002	010
Lap Shear Strength (Primed w/SP-120)	375 psi (2.6 MPa)	ASTM D1002	010

The test data shown for this material is the average value for typical properties. All of these properties may not be tested on a lot to lot basis and cannot be used to draft specifications. Please contact NuSil® for assistance and recommendations in establishing limits for product specifications.

INSTRUCTIONS FOR USE

Surface Preparation

Clean the surface with an organic solvent (e.g. MIBK). Follow solvent cleaning with an IPA wipe. Wait 15 minutes until all the solvent has evaporated before the application of any materials. If applicable, apply adhesion promoter (primer) such as NuSil's SP-120 and allow 30 minutes for the adhesion promoter to cure. Keep the surface clean and free of dust and particulates until the dispersion is applied.

Mixing

Dispense all of the Part A into the Part B under nitrogen. Mix thoroughly and/or place in paint shaker until homogenous.

Application

Apply by spraying, brushing, or dipping.

Inhibition Concerns

Although generally considered to be non-corrosive to most substrates, the oxime cure system may cause discoloration in the presence of copper or copper alloys.

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

OPERATING TEMPERATURE

The operating temperature range of a silicone in any application is dependent on many variables, including but not limited to: temperature, time of exposure, type of atmosphere, exposure of the material's surface to the atmosphere, and mechanical stress. In addition, a material's physical properties will vary at both the high and low end of the operating temperature range. This type of silicone typically remains flexible at extremely low temperatures and has been known to perform at -120°C (-248°F) as well as resist breakdown at elevated temperatures up to 300°C (572°F). The user is responsible to verify performance of a material in a specific application.

Packaging	Warranty
1 Gallon Kit (3.096 kg)	12 Months

ROHS AND REACH COMPLIANCE

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

SPECIFICATIONS

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

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC is 6 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil provides a specific

written warranty of fitness for a particular use, NuSil's sole warranty is that the product will meet NuSil's then current specification. NuSil 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'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 expressly disclaims any liability for incidental or consequential damages.

WARNINGS ABOUT PRODUCT SAFETY

NuSil believes, to the best of its knowledge, that the information and data contained herein are accurate and reliable. The user is responsible to determine the material's suitability and safety of use. NuSil 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 makes no warranty concerning fitness for any use or purpose. NuSil has completed no testing to establish safety of use in any medical application.

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

PATENT / INTELLECTUAL PROPERTY WARNING

NuSil disclaims any expressed or implied warranty against the infringement of any domestic or international patent/intellectual property right. NuSil does not warrant the use or sale of the products described herein will not infringe the claims of any domestic or international patent/intellectual property right covering the product itself, its use in combination with other products, or its use in the operation of any process.

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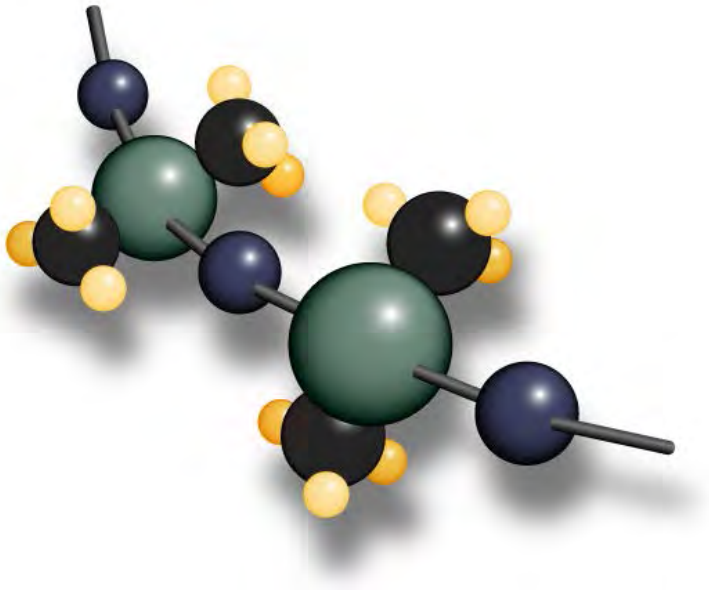

Version uploaded 07/04/2026