

# R-1009

## RTV silicone dispersion coating

### DESCRIPTION

- High-Strength, flowing, one-part RTV silicone rubber dispersed in VM&P Naphtha
- Cures to a transparent film within 24 hours
- Excellent release characteristics
- Comes in pigmented versions upon request

### APPLICATION

- As a protective coating to prevent corrosion and erosion of various surfaces in missiles, rockets, aircraft and launch equipment
- For making conformal bags used in the manufacturing of composite parts
- As a conformal coating for electronic applications

### PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
<b>Uncured:</b>			
Appearance	Translucent	ASTM D2090	002
Viscosity	6,150 cP (6,150 mPas)	ASTM D1084, D2196	001
Non-Volatile Content	32%	ASTM D2288	004
Tack-Free Time	1.5 hours	ASTM C679	005
<b>Cured: 7 days minimum at ambient temperature and humidity</b>			
Specific Gravity	1.10	D792	003
Durometer, Type A	45	D2240	006
Tensile Strength	1,150 psi (7.9 MPa)	D412	007
Elongation	650%	D412	007
Tear Strength	95 ppi (16.8 kN/m)	D624	009

Properties tested on a lot-to-lot basis. Do not use the properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications.

## INSTRUCTIONS FOR USE

### Mixing

Thoroughly mix prior to use and/or further solvent addition. Exercise care to prevent solvent loss during deairing. Accomplish additional dilution for thin film applications by adding appropriate solvent, followed by mixing and deairing.

Warning: Consult the MSDS for R-1009 prior to use as the solvent carrier is hazardous.

### Substrate Considerations

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

### Surface Preparation

Clean the surface with an organic solvent (e.g. tert butyl acetate (R2-1001)). 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 Technology's SP-120 or SP-121 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.

## 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. Silicone typically remains flexible at extremely low temperatures and has been known to perform at -50°C (-58°F) as well as resist breakdown at elevated temperatures up to 250°C (482°F). The user is responsible to verify performance of a material in a specific application.

## ROHS AND REACH COMPLIANCE

Please [contact](#) NuSil Technology's Regulatory Compliance department with any questions or for further assistance.

## SPECIFICATIONS

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### Packaging

1 Pint (390 g)  
1 Gallon (3.12 kg)  
5 Gallon (16.0 kg)

### Warranty

6 Months

Technology for assistance and recommendations in establishing particular specifications.

## WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC (hereinafter "NuSil Technology") 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 all other expressed or implied warranties, including, but not limited to, 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.

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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 Sheet 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, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.

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