R-1505

Non-corrosive static dissipative RTV silicone

DESCRIPTION

- One-part, black, electrically conductive and static dissipative RTV silicone
- Cures at room temperature to form a flexible, resilient, conductive bond or seal
- Good adhesion across a broad temperature range
- Based on a dimethyl diphenyl silicone copolymer
- Oxime cure system

APPLICATION

- For applications requiring a non-corrosive adhesive / sealant
- For RFI and EMI shielding for industrial and electronic applications
- Provides protection from extremes in temperature, humidity, radiation, thermal stress and mechanical stress
- Excellent for form-in-place conductive gaskets and for bleeding off static electricity
- Provides good radiation resistance
- For applications requiring an operating temperature range of -115°C to 260°C (-175°F to 500°F)

PROPERTIES

Typical Properties	Average Result	Metric Conv.	Standard	NT-TM
Uncured:				
Appearance	Black	-	ASTM D2090	002
Consistency	Non-Slumping	-	-	-
Non-Volatile Content	100%	-	-	-
Cure Time: 50% R.H. at 25°C				
Tack-Free Time	10 min	-	ASTM C679	005
Set Up	24 hours	-	-	-
Full Cure	7 days	-	-	-
Cured: 7 days at 25°C (77°F), 50% R.H.				
Specific Gravity	1.23	-	ASTM D792	003
Durometer, Type A	75	-	ASTM D2240	006

Typical Properties	Average Result	Metric Conv.	Standard	NT-TM
Tensile Strength	525 psi	3.6 MPa	ASTM D412	007
Elongation	25 %	-	ASTM D412	007
Thermal Conductivity	7.4 x 10^{-4} cal/(cm-sec-°C)	0.3 W/m-k	ASTM C177, C1045	101
Volume Resistivity	8 ohm·cm	-	ASTM D257, D4496	040
Dielectric Strength	10 Volts/mil	0.4 kV/mm	ASTM D149	-

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

Substrate Considerations

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

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

Typical Cure Schedule

Cure time required depends upon humidity and thickness of the material being used. Cure is accomplished by exposure to atmospheric moisture and may take longer in dry air. Cure occurs at any relative humidity level above 20%. Cure continues for several days until the oxime order has disappeared. Vulcanization and cure are not significantly improved by heat.

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.

Packaging	Warranty
6 oz tube (0.168 kg)	6 Months

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.