

# 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 |
|---|----------------|--------------|------------|-------|
| <b>Uncured:</b>                               |                |              |            |       |
| Appearance                                    | Black          | -            | ASTM D2090 | 002   |
| Consistency                                   | Non-Slumping   | -            | -          | -     |
| Non-Volatile Content                          | 100%           | -            | -          | -     |
| <b>Cure Time: 50% R.H. at 25°C</b>            |                |              |            |       |
| Tack-Free Time                                | 10 min         | -            | ASTM C679  | 005   |
| Set Up  | 24 hours       | -            | -          | -     |
| Full Cure                                     | 7 days         | -            | -          | -     |
| <b>Cured: 7 days at 25°C (77°F), 50% R.H.</b> |                |              |            |       |
| 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 | $7.4 \times 10^{-4}$ 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        | -     |

## 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 Technology LLC 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 properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications.

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### Packaging

3 oz tube (89 mL)  
6 oz tube (177 mL)

### Warranty

6 Months

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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