

## Momentive Performance Materials RTV31 Silicone Rubber Compound for High Temperature, Red

Category : Polymer , Adhesive , Thermoset , Silicone , Silicone, RTV, Adhesive/Sealant Grade

### Material Notes:

RTV31, RTV60 and RTV88 silicone rubber compounds are high temperature two-part silicone elastomers. They are supplied ready-to-use with a base compound and DEBT (deputy tin deflagrate) as the standard curing agent. DEBT is suitable for most applications, however other catalysts are available to facilitate deep section cure, faster cure and automated mixing. RTV31, RTV60 and RTV88 silicone rubber compounds differ primarily in viscosity in the uncured state. Mechanical and electrical properties for 0.5 wt% DEBT curing agent added, cured 7 days at 25°C and 50% relative humidity. Key Performance Properties: Variable work times and cure rates by adjusting the amount and type of curing agent. Room temperature cure. Composition free of solvents and solvent odor. Excellent adhesion capabilities with primer. Excellent release properties. Retention of elastomeric properties at temperatures from -54°C (-65°F) up to 260°C (500°F) continuously, and up to 316°C (600°F) for short periods of time. Applications: Potting and encapsulating electric motors and transformers. Fabrication of rubber parts. Casting molds for low-melting point metals. Release applications such as rubber rollers. Thermal insulation. GE Silicones became a part of Momentive Performance Materials in 2006.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Momentive-Performance-Materials-RTV31-Silicone-Rubber-Compound-for-High-Temperature-Red.php](http://www.lookpolymers.com/polymer_Momentive-Performance-Materials-RTV31-Silicone-Rubber-Compound-for-High-Temperature-Red.php)

| Physical Properties   | Metric       | English      | Comments |
|-----------------------|--------------|--------------|----------|
| Specific Gravity      | 1.42 g/cc    | 1.42 g/cc    |          |
| Viscosity             | 25000 cP     | 25000 cP     |          |
| Linear Mold Shrinkage | 0.0060 cm/cm | 0.0060 in/in |          |

| Mechanical Properties      | Metric    | English  | Comments |
|----------------------------|-----------|----------|----------|
| Hardness, Shore A          | 54        | 54       |          |
| Tensile Strength, Ultimate | 5.98 MPa  | 868 psi  |          |
| Elongation at Break        | 170 %     | 170 %    |          |
| Tear Strength              | 4.90 kN/m | 28.0 pli |          |

| Thermal Properties     | Metric                                 | English                               | Comments |
|------------------------|--|---------------------------------------|----------|
| CTE, linear            | 200 µm/m-°C<br>@Temperature 20.0<br>°C | 111 µin/in-°F<br>@Temperature 68.0 °F |          |
| Specific Heat Capacity | 1.46 J/g-°C                            | 0.350 BTU/lb-°F                       |          |
| Thermal Conductivity   | 0.310 W/m-K                            | 2.15 BTU-in/hr-ft²-<br>°F             |          |

| Thermal Properties <small>Temperature, Air</small> | Metric <sup>°C</sup>                   | English                                | Comments |
|--|--|--|----------|
| Brittleness Temperature                            | -54.0 $\hat{\text{A}}^{\circ}\text{C}$ | -65.2 $\hat{\text{A}}^{\circ}\text{F}$ |          |

| Electrical Properties | Metric             | English            | Comments |
|-----------------------|--------------------|--------------------|----------|
| Volume Resistivity    | 1.60e+14 ohm-cm    | 1.60e+14 ohm-cm    |          |
| Dielectric Constant   | 4.4                | 4.4                |          |
|                       | @Frequency 1000 Hz | @Frequency 1000 Hz |          |
| Dielectric Strength   | 17.0 kV/mm         | 432 kV/in          |          |
| Dissipation Factor    | 0.030              | 0.030              |          |
|                       | @Frequency 1000 Hz | @Frequency 1000 Hz |          |

| Processing Properties | Metric   | English  | Comments                    |
|-----------------------|--|--|-----------------------------|
| Cure Time             | 1440 min   | 24.0 hour  | 0.5% DBT curing agent added |
|                       | @Temperature 25.0 $\hat{\text{A}}^{\circ}\text{C}$ | @Temperature 77.0 $\hat{\text{A}}^{\circ}\text{F}$ |                             |

| Descriptive Properties | Value    | Comments   |
|------------------------|----------|--|
| Color                  | Red      |  |
| Consistency            | Pourable |  |
| Work Time              | 2 hours  | At 25 $\hat{\text{A}}^{\circ}\text{C}$ , 0.5% DBT curing agent added |

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