

EPM-2890

Thermally conductive non-corrosive RTV silicone adhesive

DESCRIPTION

- One-Part, white RTV silicone
- Non-slumping in thin sections

APPLICATION

- To provide moderate heat transfer between electrical/electronic components and their heat sinks
- As a sealing, caulking, adhesive or potting material in electronics applications requiring minimal outgassing to avoid condensation in sensitive devices
- Use for any application where grooves and other configurations require a non-slumping, non-flowable to limited flow one-part material
- For applications requiring a broader operating temperature range

PROPERTIES

| Typical Properties | Average Result | Standard | NT-TM |
|--|---|------------|-------|
| Uncured: | | | |
| Appearance* | White | ASTM D2090 | 002 |
| Cure Loss | 3.2% | ASTM D2288 | 004 |
| Extrusion Rate* (Performed using a 14 gauge nozzle with a 0.5" orifice and 90 +/-5 psi air pressure) | 40 g/min | ASTM C603 | 033 |
| Tack-Free Time* | 40 minutes | ASTM C679 | 005 |
| Cured: 72 hours minimum at ambient temperature and humidity | | | |
| Appearance* | Elastomeric Solid | ASTM D2090 | 002 |
| Specific Gravity* | 2.33 | ASTM D792 | 003 |
| Durometer, Type A* | 65 | ASTM D2240 | 006 |
| Tensile Strength* | 400 psi (2.8 MPa) | ASTM D412 | 007 |
| Elongation* | 150% | ASTM D412 | 007 |
| Thermal Conductivity* | 0.609 W/(mK) (15 x 10 ⁻⁴ cal/(cm·sec·°C)) | ASTM E1530 | 101 |

| Typical Properties | Average Result | Standard | NT-TM |
|---|--------------------------|------------|-------|
| Coefficient of Linear Thermal Expansion (-115°C to 250°C) | 221 ppm/°C (221 µm/m/°C) | ASTM E831 | - |
| Glass Transition (Tg) | -116°C (-177°F) | ASTM E831 | - |
| Ionic Content, Cl | <5 ppm | - | - |
| Ionic Content, K | <5 ppm | - | - |
| Ionic Content, Na | <5 ppm | - | - |
| Cured: 7 days at ambient temperature and humidity | | | |
| Lap Shear Strength (Unprimed)* | 225 psi (1.6 MPa) | ASTM D1002 | 010 |
| Cured: 10 days at ambient temperature and humidity | | | |
| Weight Loss (30 minutes at 275°C (527°F)) | 0.7% | ASTM D2288 | 004 |

*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 Instructions provided at end of Product Profile.

Note: Fillers may settle over time during storage. EPM-2890 is supplied in a 6 oz Semco® tube that contains an impeller to allow mixing prior to use and ensure filler is homogeneously dispersed.

Substrate Considerations

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 Technology 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 |
| 6 oz Tube (177 mL) | 6 Months |

ROHS AND REACH COMPLIANCE

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

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.

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

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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

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