

# Polymer Systems Technology Limited

UK & Ireland Distributor



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An ISO 9001 Certified Company

# R-2350

Flame Retardant, RTV Silicone Foam

## Product Profile

### Description

- Yields a medium density, flame retardant silicone foam when catalyzed
- Two Parts mix in a convenient 1:1 ratio with a black Part A and off-white Part B for easy identification and mixing
- Expands to 2-3 times its original size and cures to an elastomeric foam

### Applications

- As a flame resistant seal
- In shock and vibration dampening situations requiring a lightweight, flexible foam with excellent thermal insulation and radiation resistance
- Useful where stability at higher and lower temperatures is required

| Typical Properties                     | Result   |           | Metric Conv.            |             | ASTM          | NT-TM |
|--|--|-----------|-------------------------|-------------|---------------|-------|
|  | Part A   | Part B    | Part A                  | Part B      |               |       |
| <b>Uncured:</b>                        |  |           |                         |             |               |       |
| Appearance                             | Black  | Off-White | -                       | -           | D2090         | 002   |
| Specific Gravity @ 25°C (77°F)         | 1.15   | 1.05      | -                       | -           | D792          | 003   |
| Viscosity                              | 28,000 cP  | 12,500 cP | 28,000 mPas             | 12,500 mPas | D1084, D21986 | 001   |
| <b>Cured:</b> 45 min @ 100°C (212°F)   |  |           |                         |             |               |       |
| Specific Gravity @ 25°C (77°F)         | 0.35   |           | -                       |             | D792          | 003   |
| Color                                  | Gray   |           | -                       |             | -             | -     |
| Lap Shear Strength (primed w/ CF1-135) | 38 psi   |           | 0.26 MPa                |             | D1002         | 010   |
| Thermal Conductivity                   | 1.8 x 10 <sup>4</sup> cal cm/sec cm <sup>2</sup> C |           | -                       |             | C177          | 101   |
| Dielectric Strength                    | 190 volts/mil                                      |           | 7.48 kV/mm              |             | D149          | -     |
| Volume Resistivity,                    | 2.2x 10 <sup>15</sup> ohm-cm                       |           | -                       |             | D257          | 040   |
| Density, non-confined                  | 22 lbs/ft <sup>3</sup>                             |           | 0.350 g/cm <sup>3</sup> |             | D792, D3574   | 026   |

### Instructions for Use

#### Substrate Considerations

Cures in contact with most materials. Exceptions include: unreacted residues of some curing agents, butyl and chlorinated rubbers, and some RTV silicones containing organotin and/or amines.

**Note:** Some bonding applications may require the use of a primer. NuSil Technology CF1-135 silicone primer is recommended.

#### Mixing

Thoroughly mix R-2350 prior to catalyst addition ensuring uniformity in the cured foam. Mix Part A with Part B for 30-60 seconds, introducing air while mixing. High-speed agitation with a power mixer results in a lower density foam. Quickly pour the mixed material into the application site. Handle material within about 10 minutes after pouring, allow 24 hours for optimum physical properties. Confining the foam results in a higher specific gravity.

**Caution:** The cure exhibits an exotherm of 20°C (36°F) and the evolution of hydrogen gas. Exercise appropriate caution, keep away from open flame and use only with adequate ventilation.

#### Packaging

2 Pint Kit (750 g)  
 2 Gallon Kit (7.28 kg)

#### Warranty

6 Months

## **Warnings About Product Safety**

NuSil Technology believes that the information and data contained herein are accurate and reliable. However, the user is responsible to determine the material's suitability and safety of use. NuSil Technology 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 Technology makes no warranty concerning fitness for any use or purpose. NuSil Technology has completed no testing to establish safety of use in any medical application.

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 Sheets 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 for meeting 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, obtain available product safety information and take the necessary steps to ensure safety of use.

## **Specifications**

Do not use the typical properties shown in this technical profile as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.

## **Patent Warning**

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## **Warranty Information**

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