

Smooth-Sil™ 933 Flame Out™

Flame Rated / Thermally Conductive Silicone Rubber



www.smooth-on.com



PRODUCT OVERVIEW

Smooth-Sil™ 933 Flame Out™ is an easy to use platinum silicone rubber made especially for electrical encapsulation applications. Cured material has been flame tested and certifies to the UL 94 V-0 standard. This silicone also exhibits excellent thermal conductive properties.

Smooth-Sil™ 933 has a mix ratio of 1A:1B by weight or volume, a pot life of 45 minutes and cures in 6 hours to a dimensionally stable silicone rubber that releases no by-products that could damage sensitive components.

TECHNICAL OVERVIEW

Mix Ratio: 1A:1B by weight or volume

Mixed Viscosity, cps: 40,000 (ASTM D-2393)

Specific Gravity, g/cc: 1.42 (ASTM D-1475)

Specific Volume, cu. in./lb.: 19.5 (ASTM D-1475)

Pot Life: 45 minutes (73°F/23°C) (ASTM D-2471)

Cure time: 6 hours (73°F/23°C)

Color: White

Shore A Hardness: 33 (ASTM D-2240)

Tensile Strength, psi: 222 (ASTM D-412)

100% Modulus, psi: 71 (ASTM D-412)

Elongation @ Break: 433% (ASTM D-412)

Die B Tear Strength, pli: 50 (ASTM D-624)

Shrinkage, in./in.: <.001 (est.)

Volume Resistance, ohm: 5.71E+12

Volume Resistivity, ohm cm: 3.55E+14

Dielectric Constant, k' @100 Hz: 4.76

Dielectric Strength, V/mil: 295

Thermal Conductivity, W/M*K: 0.867

* All values measured after 7 days at 73°F/23°C

Applications include electrical potting for medical device enclosures, electrical appliances, etc. where a flame resistant and/or thermally conductive, flexible silicone seal is required.

PROCESSING RECOMMENDATIONS

PREPARATION...

Safety - Use in a properly ventilated area ("room size" ventilation). Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk. Wear vinyl gloves only. Latex gloves will inhibit the cure of the rubber.

Store and use material at room temperature (73°F/23°C). Warmer temperatures will drastically reduce working time and cure time. Storing material at warmer temperatures will also reduce the usable shelf life of unused material. These products have a limited shelf life and should be used as soon as possible.

MEASURING AND MIXING...

Before you begin, pre-mix Part A and Part B separately. After dispensing required amounts of Parts A and B into mixing container (1A:1B by volume or weight), mix thoroughly making sure that you scrape the sides and bottom of the mixing container several times.

After mixing parts A and B, vacuum degassing can be used to eliminate any entrapped air in liquid rubber. Your vacuum pump must pull a minimum of 29 inches of mercury (or 1 Bar/100 KPa). Leave enough room in container for material expansion. Vacuum material until it rises, breaks and falls. Vacuum for 1 minute after material falls.

POURING...

For best results, pour your mixture in a single spot at the lowest point of the containment field. Let the rubber seek its own level.

A uniform flow will help minimize entrapped air.

Safety First!

The Material Safety Data Sheet (MSDS) for this or any Smooth-On product should be read prior to use and is available upon request from Smooth-On. All Smooth-On products are safe to use if directions are read and followed carefully.

Keep Out of Reach of Children

BE CAREFUL - Avoid contact with eyes. Silicone polymers are generally non-irritating to the eyes however a slight transient irritation is possible. Flush eyes with water for 15 minutes and seek medical attention. Remove from skin with waterless hand cleaner followed by soap and water. Children should not use this product without adult supervision.

IMPORTANT - The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.

CURING ...

Allow rubber to cure for 6 hours at room temperature (73°F/23°C) before demolding.

Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.



Call Us Anytime With Questions About Your Application.

Toll-free: (800) 381-1733 Fax: (610) 252-6200

www.smooth-on.com is loaded with information about mold making, casting and more.