Fluorosilicones

NuSil's line of fluorosilicones comprises adhesives, sealants and coatings. Fluorosilicones resist degradation when exposed to jet fuel, solvents, gasoline, or crude oil and operate in a broad range of temperatures.

The adhesives are fast-cure, one-part, translucent RTV silicones possessing excellent elastomeric properties. They are great for sealing and bonding applications and don't require use of a primer. The fluorosilicone adhesives protect or bond hardware components that are commonly exposed to solvents, gasoline or aviation fuels.

Fluorosilicone coatings offer the convenience of a one-part, RTV silicone dispersed in tert butyl acetate. NuSil's fluorosilicone coatings are designed for spraying and dip casting into thin elastomeric films. They bond aggressively to most surfaces. Applications may include: coating, sealing, and bonding where solvent and/or fuel resistance is necessary.

NuSil Product Number	Tack-Free Time	Durometer	Tensile Strength	Elongation
Adhesives / Sealants				
FS3-3730	15 minutes	35	800 psi / 5.5 MPa	400%
FS-3775	10 minutes	25	450 psi / 3.1 MPa	450%
Coatings				
R-3930	-	30	750 psi / 5.2 MPa	425%
R-3975	-	25	425 psi / 2.9 MPa	400%

The products listed above can be pigmented to match Federal Color Standards or Pantone Matching System

These silicone materials deliver thermally and electrically conductive adhesives, potting compounds, encapsulants, and fast-curing silicones, as well as the most extensive line of low outgassing silicone materials in the industry. Our line of aerospace-applicable silicone is highly resilient in the extreme temperatures found in space.

For more information regarding these products, please contact Polymer Systems Technology Ltd

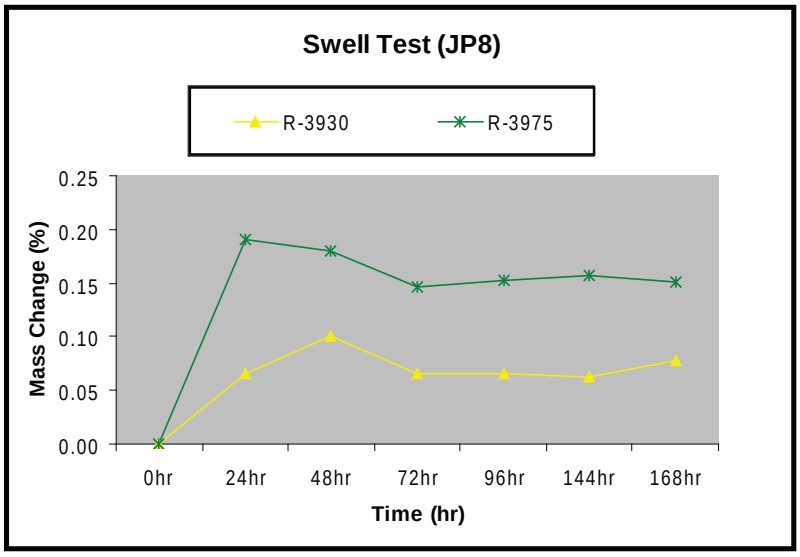
About NuSil Technology

NuSil Technology is a cutting edge manufacturer of silicone materials for aerospace products requiring precise, predictable, cost-effective materials. ISO-9001 certified since 1994, NuSil operates state-of-the-art laboratories and processing facilities in North America and provides engineering support worldwide.

For more information, please visit:
www.silicone-polymers.com

Fluorosilicones

NuSil Technology conducted a Percent Swell Study (Ref ASTM D-471), to measure change in volume based on specific gravity of R-3930 and R-3975. The differences in the samples were evaluated before and after exposure to solvent. The higher percent change in mass means the silicone is absorbing more solvent. The silicones were soaked in JP8 for seven days at ambient conditions. Percent change in mass was measured and reported every day over seven days, 168 hours.



The study results show that the highest initial percent change in swell is within the first 48 hours at 0.19% for R-3975 and 0.10% for R-3930. This early peak indicates the initial swell/change in appearance after exposure. After that early peak, at 72 hours, the silicone remains fairly consistent, making it easier to figure out what to expect and how the material will perform in that environment for an extended period of time. As shown above, R-3930 is optimized for minimum swell with a maximum percent change in mass of 0.10%. R-3975, however, is optimized for better performance in elevated temperatures, thus its maximum percent mass change is slightly higher at 0.19%.

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For more information, please visit:
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