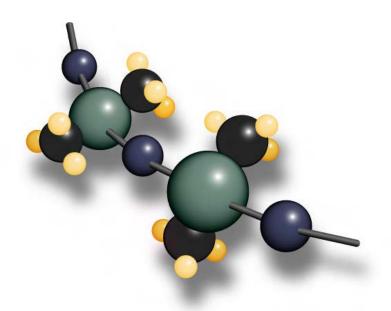
# Polymer Systems Technology Limited

# **UK & Ireland Distributor**



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# **Product Profile**



FS-3511

**Liquid Injection Molding Fluorosilicone Elastomer** 

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> An ISO 9001 and AS9100 Certified Company

# **Description**

- Two-part, translucent, fluorosilicone elastomer used with liquid injection molding equipment
- 1:1 Mix Ratio (Part A:B)
- Cures rapidly with heat
- 100 mol % fluorosilicone

# **Applications**

- For components exposed to JP-8, aviation fuels and solvents
- For applications requiring a medium hardness silicone with solvent resistance
- Some typical applications include O-rings, gaskets, seals, and precision molded parts
- Excellent for molding high quality parts at rapid rates

Properties	Average Result	ASTM	NT-TM
Uncured:			
Appearance	Translucent	D2090	002
Extrusion Rate, Part A	70 g/min	C603	033
Extrusion Rate, Part B	180 g/min	C603	033
Work Time	> 24 hours	-	008
Cured: 30 min @ 150°C (302°F) Stabilize for	· 3 hrs @ ambient temperature		
Specific Gravity	1.39	D792	003
Durometer, Type A	42	D2240	006
Tensile Strength	850 psi (5.9 MPa)	D412	007
Elongation	240%	D412	007
Tear Strength	40 ppi (7.1 kN/m)	D624	009

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**

Use with mix and dispense equipment in a 1:1 mix ratio. If mixing by hand, take care to minimize air entrapment.

#### **Vacuum Deaeration**

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all applicable safety precautions. Slowly apply vacuum, up to 28 inches Hg, to a container rated for use and of volume at least four times that of material being deaerated. Hold vacuum until presence of air is no longer evident.

#### **Substrate Consideration**

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

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

#### Adjustable Cure Schedule

Product cures at room temperature and a wide range of elevated temperatures and cure times to accommodate different production needs. Contact NuSil Technology LLC for details.

# **Packaging**

50 mL SxS Kit 200 mL SxS Kit 400 mL SxS Kit 2 Pint Kit

#### Warranty

12 Months

## **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. Silicone typically remains flexible at extremely low temperatures and has been known to perform at  $-140^{\circ}$ C (-220 F) as well as resist breakdown at elevated temperatures up to 315°C (599 F). The user is responsible to verify performance of a material in a specific application.

# **RoHS and REACh Compliance**

FS-3511 is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHs) regulation contained in Article 4(1) of the European Parliament and Council's Directive 2002/95/EC. RoHS mandates that manufacturers restrict the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polychlorinated biphenyls, and polybrominated diphenyl ethers in electrical and electronic equipment.

FS-3511 is also compliant with the Registration, Evaluation, and Authorization of Chemicals (REACh) regulation (European Union 1907/2006). FS-3511 does not contain any of the 16 chemicals identified as Substances of Very High Concern (SVHC) by the European Chemicals Agency (ECHA), which oversees 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 12 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 exclusive remedy and NuSil Technology's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. NuSil Technology expressly disclaims any liability for incidental or consequential damages.

## **Warnings About Product Safety**

NuSil Technology believes, to the best of its knowledge, that the information and data contained herein are accurate and reliable. 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 Sheet 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 to meet 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, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.

# **Patent / Intellectual Property Warning**

NuSil Technology disclaims any expressed or implied warranty against the infringement of any domestic or international patent/intellectual property right. NuSil Technology does not warrant the use or sale of the products described herein will not infringe the claims of any domestic or international patent/intellectual property right covering the product itself, its use in combination with other products, or its use in the operation of any process.