# TFT™ Fluorosilicone (FVMQ) Teflus® FS Series

Teflus <sup>®</sup> FSG Series (Rubber <u>G</u> um)		Teflus <sup>®</sup> FSB Series (Rubber <u>Base</u> )		
Туре	Teflus <sup>®</sup> FSG	Туре	Teflus <sup>®</sup> FSB	
RTV Homopolymer	FSG-R100	High <u>T</u> ear Strength	FSB-T100	
<u>H</u> TV Homopolymer	FSG-H100	Extrusion	FSB-E100	
RTV Copolymer	FSG-R200	<u>G</u> eneral Purpose	FSB-G100	
<u>H</u> TV Copolymer	FSG-H200	Low <u>C</u> ompression	FSB-C200	
Ex) Teflus® FSG series (FSG-R110, FSG-H230,)		Ex) Teflus® FSB series (FSB-T130, FSB-C281,)		

Teflus <sup>®</sup> FSL Series (Oil <u></u> )					
Туре	Teflus <sup>®</sup> FSL				
Hydroxyl	FSL-100				
Methyl	FSL-200				
Homopolymer Vinyl	FSL-300				
Compolymer Vinyl	FSL-400				
Ex) Teflus® FSL series (FSL-110, FSL-420,)					

# Fluorosilicone Rubber (FVMQ)

Fluorosilicone rubber (FVMQ) is an elastomer obtained by homopolymerization of tris(trifluoropropyl) trimethylcyclotrisiloxane (abbreviated as D3F) or copolymerization with other silicone monomers. The backbone of fluorosilicone rubber is the same as the common silicone rubber (VMQ) while the side chain of flurosilicone rubber introduces a trifluoropropyl group, so fluorosili- cone rubber perfectly combines the advantages of fluorocarbon rubber (FKM) such as excellent oil resistance and high temperature work ability, and the advantages of silicone rubber (VMQ) such as good softness and outstanding low temperature and high temperature work ability. Fluorosilicone rubber is suitable for applications in low temperature, high temperature, and solvent resistant and oil Fluorosilicone Rubber (FVMQ) resistant environments.

#### Chemical structure:

$$\begin{array}{c|c}
CH_3 & CH_3 & CH_3 \\
-(Si - O)_{\overline{n}} & (Si - O)_{\overline{m}} & (Si - O)_{\overline{k}} \\
-(Si - O)_{\overline{n}} & (Si - O)_{\overline{k}} & (Si - O)_{\overline{k}}
\end{array}$$

$$\begin{array}{c|c}
CH_3 & CH_3$$

#### **Product Features:**

- > Easily processed; Easily pigmented.
- > Retaining properties over a wide temperature range of -60°C to 230°C.
- > Good anti-flammability.
- > Suitable to produce rubber compounds of many different durometers, Hardness (Shao A) 20-90.
- > Excellent oil resistance; outstanding apolar solvent resistance.
- > Designed to meet many standards including ASTM, D2000M | L-R-25988, BMS-1-530.

### **TFT LIMITED fluorosilicone products:**

Product name	Grade	Product Introduction		
Fluorosilicone Raw Gum	Teflus <sup>®</sup> FSG	It is divided into raw gum for high temperature curing and raw gum for room temperature curing. High temperature curing raw gum is homopolymerized fluorosilicone raw gum Teflus <sup>®</sup> FSG-H100 and copolymer fluorosilicone raw gum Teflus <sup>®</sup> FSG-H200; Room temperature curing with raw gum homopolymerfluorosilicone raw gum Teflus <sup>®</sup> FSG-R100 and copolymer fluorosilicone raw gum Teflus <sup>®</sup> FSG-R200.		
Fluorosilicone Compound	Teflus <sup>®</sup> FSB	It is divided into general purpose Teflus <sup>®</sup> FSB-G100, low Compression Teflus <sup>®</sup> FSB-C200; High Tear Strength Teflus <sup>®</sup> FSB-T100; Extrusion grade Teflus <sup>®</sup> FSB-E100.		
Fluorosilicone Oil	Teflus <sup>®</sup> FSL	Compared with fluorosilicone rubber, it is a fluorosilicone polymer with a lower molecular weight and a viscosity of less than 400Pa·s. Which is including Hydroxyl terminated fluorosilicone oil Teflus <sup>®</sup> FSL-100,methyl-terminated fluorosiliconeoil Teflus <sup>®</sup> FSL-200, vinylterminated fluorosilicone oil Teflus <sup>®</sup> FSL-300 and copolymer branched and end group with vinylfluorosilicone oil Teflus <sup>®</sup> FSL-400.		

# Fluorosilicone Rubber (HTV Copolymer) Teflus® FSG-H200

#### **Chemical Structure:**

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#### **Product Features:**

- > Homogeneous molecular weight distribution.
- > Homogeneous vinyl content distribution.
- > Easy blending with methyl silicone rubber.
- > Easily mixed with different types of fillers such as silica, calcium carbonate, diatomite, and quartz powder.

#### **Product Performance:**

Property	Unit	Technical Standards		
		FSG-H201	FSG-H202	FSG-H203
Appearance	-	Colorless or slightly yellowish transparent liquid, no mechanical impurities.		
Density	g/cm³	1.15	1.15	1.15
Molecular Weight	Thousand	500	700	700
Vinyl Content	mol%	0.3	0.3	0.08
Volatile Matter (3hr/150°C)	%	2.5	2.5	2.5

<sup>\*</sup> The above data is typical data.

### **Product Application:**

- > It can manufacture high and low temperature resistant sealing materials with medium oil resistance and reagent.
- > Suitable to produce molded, extruded and calendered parts including O-rings, gaskets, fuel-line quickconnect seals, oil seals, sealing strips, diaphragms, membranes, valves, hydraulic and electrical clamp blocks.
- > Improve the performance of silicone rubber and fluoroelastomer materials; Improve the performance of silicone resistance rubber and fluorosilicone rubber combined materials.
- > Widely used in automobile industry, aerospace industry, petroleum chemical industry.

### **Package and Shipment:**

- > PE plastic drum, available in 1 kg, 5 kgs, 10 kgs, or according to customers' requirements
- > It is shipped as non-dangerous liquid goods.

## **Storage:**

- > It shall be stored in a dry and ventilate place and its shelf life is one years.
- > It shall be stored in a neutral place to avoid contact with acidic or alkalic substances.
- > If the package is broken, please do not use any materials that are whitish or not transparent.



# **Fluoro Organic Materials**

We might adjust the grades and properties of our products without any further notices.

If the up-to-date information is needed, please contact us.

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