# TFT™ Fluorosilicone (FVMQ) Teflus® FS Series

Teflus <sup>®</sup> FSG Serie	s (Rubber <u>G</u> um)	Teflus <sup>®</sup> FSB Series (Rubber <u>Base</u> )		
Туре	Teflus <sup>®</sup> FSG	FSG Type Teflus <sup>®</sup>		
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-R11	0, FSG-H230,)	Ex) Teflus® FSB series (FSB-T130, FSB-C281,)		

Teflus® FSL So	eries (Oi <u>l</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** (Hydroxyl) Teflus® FSL-100

#### **Chemical Structure:**

$$CH_3$$
 $|$ 
 $HO - (Si - O) \rightarrow nH$ 
 $|$ 
 $CH_2CH_2CF_3$ 

#### **Product Features:**

- > Excellent hydrophobic and lipophobic properties.
- > High flash point, non-flammable.

#### **Product Performance:**

Property	Test	Unit	Technical Standards			
	Method		FSL-101	FSL-102	FSL-103	FSL-104
Appearance	Vision	- \	Colorless transparent liquid			
Density(25°C)	GB/T 1884	g/cm³	1.27	1.28	1.28	1.28
Viscosity(25°C)	GB/T 10247	Pa⋅s	0.1-1	1-10	10-100	> 100
Flash Point	GB/T 3536	°C		> 2	00	
pH Value	-	-		6-	7	

### **Product Application:**

- > Teflus<sup>®</sup> FSL-101 (low molecular weight) can be used as structural control agent in processing fluorosilicone rubber. It can also be used as a modifier in the polymerization of other polymers to add hydrophobic and lipophobic properties.
- > Teflus<sup>®</sup> FSL-102/103/104 (low molecular weight) can be used as additive in processing FKM and self-lubricating silicone rubber.

## **Package and Shipment:**

- > PE plastic drum, available in 5 kg, 10 kgs, 20 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 year.
- > It shall be stored in a neutral place to avoid contact with acidic or alkalic substances.

## **Handling Precautions:**

>It is a non-dangerous goods with flash point( open cup) of over 200°C. It does no harm to eyes, skin, or other human organs.
> Please do not contact this product with acidic or alkalic substances to avoid decomposing.
>For other safety issues, please review MSDS of the product or contact sales representatives.



# **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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