TFT[™] Fluorosilicone (FVMQ) Teflus[®] FS Series

Teflus [®] FSG Series (Rubber <u>G</u> um)		Teflus [®] FSB Series (Rubber <u>Base</u>)		
Туре	Teflus [®] FSG	Туре	Teflus [®] FSB	
<u>R</u> TV Homopolymer	FSG-R100	High <u>T</u> ear Strength	FSB-T100	
<u>H</u> TV Homopolymer	FSG-H100	Extrusion	FSB-E100	
<u>R</u> TV 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 [®] FSL S	eries (Oi <u>l</u>)		
Туре	Teflus [®] 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:

$$\begin{array}{c} CH_{3} & CH_{3} & CH_{3} \\ \begin{pmatrix} I \\ Si \\ - \\ I \\ I \\ CH_{2}CH_{2}CF_{3} \end{array} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ Si \\ CH=CH_{2} \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ - \\ O \\ H \end{array} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ - \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ - \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ - \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}} \xrightarrow{\begin{array}{c} CH_{3} \\ I \\ O \\ H \end{array}$$

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 [®] 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 [®] FSG-H100 and copolymer fluorosilicone raw gum Teflus [®] FSG-H200; Room temperature curing with raw gum homopolymerfluorosilicone raw gum Teflus [®] FSG-R100 and copolymer fluorosilicone raw gum Teflus [®] FSG-R100 and FSG FIGN FIGN FIGN FIGN FIGN FIGN FIGN FIG		
Fluorosilicone Compound	Teflus [®] FSB	It is divided into general purpose Teflus [®] FSB-G100, low Compression Teflus [®] FSB-C200; High Tear Strength Teflus [®] FSB-T100; Extrusion grade Teflus [®] FSB-E100.		
Fluorosilicone Oil	Teflus [®] 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 [®] FSL-100,methyl-terminated fluorosiliconeoil Teflus [®] FSL-200, vinylterminated fluorosilicone oil Teflus [®] FSL-300 and copolymer branched and end group with vinylfluorosilicone oil Teflus [®] FSL-400.		

Fluorosilicone Rubber (HTV Homopolymer) Teflus® FSG-H100

Chemical Structure:



Product Features:

- > Homogeneous molecular weight distribution.
- > Homogeneous vinyl content distribution.
- > Low volatile Matter.
- > Easily mixed with different types of fillers such as silica, calcium carbonate, diatomite, and quartz powder.

Product Performance:

	Unit	Technical Standards					
Property		FSG-H101	FSG-H102	FSG-H103	FSG-H104		
Appearance	-	Colorless or slightly yellowish transparent liquid, no mechanical impurities.					
Density	g/cm ³	1.30					
Molecular Weight	Thousand	500	800	1000	1200		
Vinyl Content	mol%	0.1-1.5					
Volatile Matter (3hr/150°C)	%	2.0					

* The above data is typical data.

Product Application:

- > Suitable for applications as sealing materials for petroleum oil, lubricant oil, hydraulic oil, transformer oil, and apolar chemical reagents in low temperature and/ or high temperature environments.
- > Suitable to produce molded, extruded and calendered parts including O-rings, gaskets, fuel-line quick-connect seals, oil seals, sealing strips, diaphragms, membranes, valves, hydraulic and electrical clamp blocks.
- > Widely used in automobile industry, aerospace industry, petroleum chemical industry and military industry.

Package and Shipment:

> It is available in 10 kg per aluminum-plastic composite bag and two bags in one carton.

> It is shipped as non-dangerous goods. The product can flow because of its own gravity, so it shall be properly packaged to avoid any leakage. If it is leaked, please dispose it as non-dangerous goods.

Storage:

- > It shall be stored in a dry and ventilate place and its shelf life is two 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.

Manufacturer:

[Guang Zhou Office] Unit 1006, 10th Floor,Tower B, NO.26 ChenYue Road, HaiZhu District GuangZhou, CHINA Tel: +86.20.8918.9425 [Hong Kong Office] Unit 1101, 11th floor, Tower 1, Enterprise Squar Bldg, No. 9 Sheung Yuet Road, Kowloon Bay, Hong Kong. Tel: +852.2893.5300

http://www.teflus.com E-mail: tftlimited_xu@163.com