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	
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® FSL So	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:

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

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

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 [®] 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-R200.
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 (RTV Homopolymer) Teflus® FSG-R100

Chemical Structure:

Product Features:

- > Homogeneous molecular weight distribution.
- > Liquid, easy-flowing, base polymer for putty/ adhesives/ sealants.
- > Low volatile matter, short time for surface drying.

Product Performance:

Property	Unit	Technical Standards			
		FSG-R101	FSG-R102	FSG-R103	FSG-R104
Appearance	-	Colorless or slightly yellowish transparent liquid, no mechanical impurities.			
Density	g/cm³	1.28	1.28	1.28	1.28
Viscosity	Pa⋅s	1-10	10-40	40-90	90-200
рН	-	Neutral			
Volatile Matter(3hr/180°C)	%	1.5	1.5	1.5	1.5

^{*}Each grade specifies the viscosity range, and the actual viscosity can be controlled at ±10% of the required viscosity Other data are typical values.

Product Application:

- > Suitable to be the base polymer of putty, adhesive and sealant for oil/ solvent-resistant and high-low temperature applications, such as the overall sealing and caulking of aircraft fuel tanks, the assembly and repair of small motors that cannot be welded, and the support plate of fuel operating systems.
- > Bonding/ fixation/ repairation of fluorosilicone rubber gaskets.
- > Bonding between fluororubber and silicone rubber products.

Package and Shipment:

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

Storage:

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

Handling Precautions and Safety Information:

- > It is a non-dangerous goods with flash point (close cup) of over 101°C. It does not harm to eyes, skin, and other human organs.
- > It is prohibited to heat this product in high temperature. Its highest contact temperature is 250°C. A higher temperature might decompose this product.
- > It is prevented from contacting acidic or alkalic substances which will decompose this product.
- > For other safety issues, please review MSDS of this product or contact the manufacturer.



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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