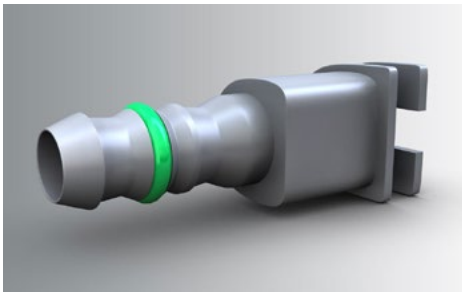
SILASTIC™ Fluorosilicone Rubber (FSR)

High-performance engineered elastomers with fuel, oil and chemical resistance



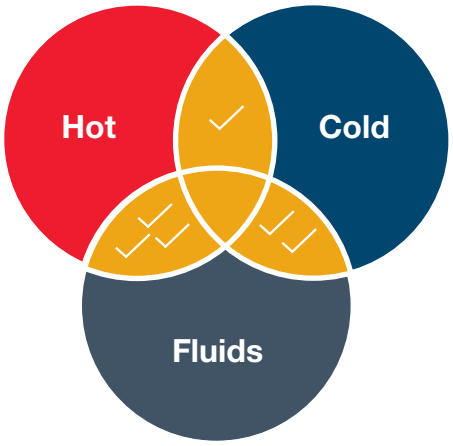
FSR performance and processing

SILASTIC™ Fluorosilicone Rubber combines excellent mechanical properties with proven environmental resistance that many organic elastomers cannot match.

Key strengths are:

- High resistance to fuels, oils, solvents and harsh chemicals
- Durable stability in extreme temperatures, from -50°C to +200°C
- Reliable performance with heat aging and fluid immersion
- Wide range of engineering properties for application versatility

Fluorosilicone performance matrix



With good processing characteristics for both precision and efficiency, SILASTIC™ Fluorosilicone Rubber is suitable for molding, extruding and calendering.

FSR options and applications

SILASTIC™ Fluorosilicone Rubber can help meet your performance and processing requirements for more durable and reliable automotive components with a range of product options. These include FSR engineered elastomers for general purpose uses, as well as for uses that demand high strength or high fatigue life.

Potential applications include:

- Engine seals and gaskets
- Fuel system connector seals
- Flexible diaphragms and valves
- Turbocharger hose liners

Selection guide with typical properties

Property	Test method*	Unit	General purpose			High strength		High fatigue life
			SILASTIC™ DY 37-016 U Rubber	SILASTIC™ LS 63 U Rubber	SILASTIC™ DY 37-071 U Rubber	SILASTIC™ SE 1561 U Fluorosilicone Rubber	SILASTIC™ SE 1570 U Fluorosilicone Rubber	SILASTIC™ DY 37-029 U Rubber
As supplied								
Appearance	CTM 0176		Straw yellow	White	Straw yellow	Straw yellow	Straw yellow	Brown
RC-4 (50P) phr to 100 phr of U stock			1	1	1	1	1	1
Molding condition by press		min/°C	10/170	10/170	10/170	10/170	10/170	10/170
Post-cure condition		hr/°C	4/200	8/200	4/200	4/200	4/200	4/200
As cured								
Density	JIS K 6249	g/cm^3	1.42	1.48	1.45	1.45	1.48	1.42
Hardness, JIS type A	JIS K 6249		53	60	70	60	70	47
Tensile strength, JIS#3	JIS K 6249	MPa	8.6	7.8	9.2	8.8	8.1	10.5
Elongation, JIS#3	JIS K 6249	%	330	330	220	400	310	410
Tear strength, crescent	JIS K 6249	N/mm	11	28	11	22	22	16
Compression set, 70 hr/150°C	JIS K 6249	%	5	18	6	7	14	7
Heat stability – 70 hr/200°C								
Change in hardness	JIS K 6249	points	1	7	-1	1	5	0
Percentage change in tensile strength	JIS K 6249	%	-17	-20	-18	-19	-17	-14
Percentage change in elongation	JIS K 6249	%	-1	-34	-12	-6	-20	-4
Fluid resistance – IRM 903, 70 hr/150°C								
Change in hardness	JIS K 6249	points	-6	-1	-4	-7	-2	-3
Percentage change in tensile strength	JIS K 6249	%	-13	7	-11	-11	-11	-12
Percentage change in elongation	JIS K 6249	%	-7	-8	-13	-1	-19	-2
Volume swell	JIS K 6249	%	3	3	4	4	3	3
Fluid resistance – FUEL C, 72 hr/23°C								
Volume swell	JIS K 6249	%	23	21	23	24	23	21

*CTM: Corporate Test Method. Copies of CTMs are available upon request.
JIS: Japanese Industrial Standard.
Specification Writers: These values are not intended for use in preparing specifications. Please contact your Dow Sales Application Engineer or Dow Customer Service before writing specifications on these products.

For more information

To learn more about using these fluorosilicone rubber products in challenging automotive applications, contact your Dow technical representative or visit **www.dow.com**.

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