

Fluorocarbon Rubber

Fluorocarbon rubber sometime call Viton , FKM is able to withstand high temperature, while simultaneously retaining its good mechanical properties. Oil and chemical resistance are also essentially unaffected by elevated temperatures.

Compounds of FKM remain substantially elastic when exposed to laboratory air oven ageing up to 204°C or to intermittent exposures up to 316°C.

FKM also resist degradation from a wider variety of chemicals and fluids – including oils, fuels, lubricants and most mineral acids – than any other non-fluorinated elastomer, it provides the best fluid resistance of any commercial rubber. With its low permeability to such a broad range of substances, FKM is known to deliver exceptionally good performance in oxygenated automotive fuels.

It is also especially resistant to atmospheric oxidation, sun, climatic conditions, fungus and mould. Furthermore, FKM has good electrical properties (in low voltage, low frequency applications) and low burning characteristics..

Properties:

- Resistance to oil & grease
- Very good resistance to fuels
- Excellent heat resistance
- Excellent weather & ozone resistance
- Good acid resistance



Applications

- Aircraft and aerospace
- Automotive
- Chemical processing and transportation
- Oil and gas exploration and production
- Petroleum refining and transportation



Specification

Standard Color :	Black		
Work Temperature:	-20 °C -- 260 °C		
Specification :	Test Method	Unit	Test Result
Specific Gravity	ASTM D792	g/cm3	2.0+-0.1
Hardness	ASTM D2240	Shore A	75+-5
Tensile Strength	JIS K6301	kgf/cm2	160
Tear Strength	ASTM D-412	kgf/cm	80
100% Modulus	ASTM D-412	kgf/cm2	86
Elongation	JIS K6301	%	300
Compression Set (Using a 3.5 mm dia.O-ring)	72H at 25°C		6%
	72H at 100°C		11%
	72H at 150°C		12%
	72H at 175°C		16%
	72H at 200°C		22%
Aging Properties, 230°C, 72 hours	Hardness Change		+0 shore A
	Tensile Strength Change		-6%
	Elongation Change		4%
Aging Properties, 275°C, 72 hours	Hardness Change		+1 shore A
	Tensile Strength Change		-28%
	Elongation Change		22%
Oil Resistance Properties, test by gasoline, under 40°C, 70 hours	Hardness Change		-4 shore A
	Tensile Strength Change		-18%
	Elongation Change		-4%
	Volume Change		3.50%