



### Rubber Material Selection Guide

#### *FKM or Fluoroelastomer*

Abbreviation	FKM
Chemical Definition	Vinylidene fluoride hexafluoropropylene

#### Physical & Mechanical Properties

Durometer or Hardness Range	50 – 95 Shore A
Tensile Strength Range	3.45 – 13.79 MPa
Elongation (Range %)	400 % – 500 %
Abrasion Resistance	Fair to Good
Adhesion to Metal	Good to Excellent
Adhesion to Rigid Materials	Fair to Good
Compression Set	Good to Excellent
Flex Cracking Resistance	Fair to Good
Impact Resistance	Good
Resilience / Rebound	Poor to Fair
Tear Resistance	Fair to Good
Vibration Dampening	Fair to Good

#### Chemical Resistance

Acids, Dilute	Good to Excellent
Acids, Concentrated	Good to Excellent
Acids, Organic (Dilute)	Fair to Good
Acids, Organic (Concentrated)	Poor to Good
Acids, Inorganic	Good to Excellent
Alcohol's	Fair to Excellent
Aldehydes	Poor
Alkalies, Dilute	Fair to Good
Alkalies, Concentrated	Poor
Amines	Poor
Animal & Vegetable Oils	Excellent
Brake Fluids, Non-Petroleum Based	Poor to Fair
Diester Oils	Good to Excellent
Esters, Alkyl Phosphate	Poor
Esters, Aryl Phosphate	Excellent
Ethers	Poor
Fuel, Aliphatic Hydrocarbon	Excellent
Fuel, Aromatic Hydrocarbon	Excellent
Halogenated Solvents	Good to Excellent
Hydrocarbon, Halogenated	Good to Excellent
Ketones	Poor
Lacquer Solvents	Poor
LP Gases & Fuel Oils	Excellent
Mineral Oils	Excellent
Oil Resistance	Excellent
Petroleum Aromatic	Excellent
Petroleum Non-Aromatic	Excellent
Refrigerant Ammonia	Poor
Silicone Oil	Excellent
Solvent Resistance	Excellent

#### Thermal Properties

Low Temperature Range	-34°C to -18°C
Minimum for Continuous Use (Static)	-12°C to -34°C
Brittle Point	-18°C to -40°C
High Temperature Range	+232°C to +260°C
Maximum for Continuous Use (Static)	+260°C

#### Environmental Performance

Colorability	Good to Excellent
Flame Resistance	Good to Excellent
Gas Permeability	Good to Excellent
Odor	Good
Ozone Resistance	Excellent
Oxidation Resistance	Excellent
Radiation Resistance	Fair to Good
Steam Resistance	Good to Excellent
Sunlight Resistance	Good to Excellent
Weather Resistance	Excellent
Water Resistance	Excellent

For assistance in identifying the appropriate polymer or material, or to develop and formulate a rubber compound to meet your specific application and performance requirements, please contact Zeta Chemicals.