



Rubber Material Selection Guide FKM or Fluorocarbon / Fluoroelastomer Viton® / Fluorel®

- Abbreviation FKM
- ASTM D-2000 Classification HK
- Chemical Definition Vinylidienefluoridehexafluoropropylene
- RRP Compound Number Category 90000 Series

Physical & Mechanical Properties

- Durometer or Hardness Range 50 – 95 Shore A
- Tensile Strength Range 500 – 2,000 PSI
- 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



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Chemical Resistance

■ 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
■ Fuel, Extended (Oxygenated)	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
■ Refrigerant Halofluorocarbons	R-11, R-12, R-13
■ Refrigerant Halofluorocarbons w/ Oil	R-11, R-12
■ Silicone Oil	Excellent
■ Solvent Resistance	Excellent



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Thermal Properties

■ Low Temperature Range	-30° F to 0° F
■ Minimum for Continuous Use (Static)	+ 10° F to - 30° F
■ Brittle Point	0° F to - 40° F
■ High Temperature Range	+ 450° F to + 500° F
■ Maximum for Continuous Use (Static)	+ 500° F

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
■ Taste Retention	Fair to Good
■ Weather Resistance	Excellent
■ Water Resistance	Excellent

For assistance in identifying the appropriate polymer or material, or to develop and formulate a polyacrylate / acrylic rubber compound to meet your specific application and performance requirements, please contact Robinson Rubber Products at e-mail: sales@robinsonrubber.com or phone: +1-763-535-6737.

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