

Fluoroelastomer (Viton®)

ASTM D1418 & ISO 1629 Designation: **FKM**

ASTM D2000, SAE J200 Type/Class: **HK**

Mil-R-3065 (Mil-Std 417) Class: **TB**



Advantages: High heat resistance; resistant to oil and almost all inorganic chemicals and organic compounds, excellent resistance to oxygen, ozone and natural weathering. Self extinguishing and flame retardant. Excellent compression set.

Limitations: Electrically conductive; relatively expensive; low resilience, poor low temperature flexibility.

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

Thermal Properties

General Temperature Range -30°F to 572°F
Min. for continuous Use (Static): -30°F
Brittle Point: -40°F
Max. for Continuous Use (Static): 572°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
Weather Resistance: Excellent
Water Resistance: Excellent

Chemical Resistance

Acids, Dilute: Good to Excellent
Acids, Concentrated: Good to Excellent
Acids, Organic (Dilute): Fair to Good
Acids, Organic (Concentrated): Poor to Good
Alcohols: Poor
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
Esters: Poor
Fuel, Aliphatic Hydrocarbon: Excellent
Fuel, Aromatic Hydrocarbon: Excellent
Fuel, Extended (Oxygenated): Excellent
Halogenated Solvents: Good to Excellent
Hydrocarbon, Halogenated: Good to Excellent
Ketones (MEK, acetone): Poor
Lacquer Solvents: Poor
LP Gases & Fuel Oils: Excellent
Mineral Oils: Excellent
Oil Resistance: Excellent
Petroleum Aromatic: Good to 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