

Epichlorohydrin Rubber (ECO)

ASTM D1418 & ISO 1629 Designation: **CO, ECO**

ASTM D2000, SAE J200 Type/Class: **BG, BK, CE, CH, DH, DJ, DK**

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



Advantages: Resistant to ozone, weathering and oils; good heat resistance; very low permeability to gasses; fire resistant and flame retardant.

Limitations: Electrically conductive; relatively expensive; low resilience; limited resistance to most organic chemicals can be corrosive.

Physical & Mechanical Properties

Durometer or Hardness Range: 45-95 Shore A
Tensile Strength Range: 1,000 - 3,000 PSI
Elongation (Range%): 200% - 800%
Abrasion Resistance: Fair to Good
Adhesion to Metal: Good
Adhesion to Rigid Materials: Good to Excellent
Compression Set: Good to Excellent
Flex Cracking Resistance: Good to Excellent
Impact Resistance: Fair to Good
Resilience/Rebound: Good to Very Good
Tear Resistance: Fair to Excellent
Vibration Dampening: Good

Thermal Properties

General Temperature Range -65°F to 275°F
Min. for continuous Use (Static): -60°F
Brittle Point: -70°F
Max. for Continuous Use (Static): 275°F

Environmental Performance

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

Chemical Resistance

Acids, Dilute: Good
Acids, Concentrated: Poor to Fair
Acids, Organic (Dilute): Fair
Acids, Organic (Concentrated): Poor
Alcohols: Fair to Good
Aldehydes: Poor to Fair
Alkalies, Dilute: Poor
Alkalies, Concentrated: Fair to Good
Amines: Poor to Good
Animal & Vegetable Oils: Excellent
Brake Fluids, Non-Petroleum Based: Poor
Diester Oils: Poor to Good
Esters, Alkyl Phosphate: Poor
Esters, Aryl Phosphate: Poor
Esters: Good
Fuel, Aliphatic Hydrocarbon: Good to Excellent
Fuel, Aromatic Hydrocarbon: Good to Excellent
Fuel, Extended (Oxygenated): Fair to Good
Halogenated Solvents: Poor
Hydrocarbon, Halogenated: Excellent
Ketones (MEK, acetone): Fair
Lacquer Solvents: Fair
LP Gases & Fuel Oils: Excellent
Mineral Oils: Excellent
Oil Resistance: Excellent
Petroleum Aromatic: Good to Excellent
Petroleum Non-Aromatic: Poor
Refrigerant Ammonia: Poor
Refrigerant Halofluorocarbons: R-12
Refrigerant Halofluorocarbons w/ Oil: Good to Excellent
Silicone Oil: Good to Excellent
Solvent Resistance: Good to Excellent