

Rubber Material Selection Guide

EA or Ethylene Acrylic

Abbreviation	EA
Chemical Definition	Acrylic

Physical & Mechanical Properties

Durometer or Hardness Range	35 – 95 Shore A
Tensile Strength Range	3.45 – 20.68 MPa
Elongation (Range %)	200 % – 850 %
Abrasion Resistance	Good to Excellent
Adhesion to Metal	Good
Adhesion to Rigid Materials	Good
Compression Set	Poor to Good
Flex Cracking Resistance	Good
Impact Resistance	Good to Very Good
Resilience / Rebound	Poor to Fair
Tear Resistance	Good to Excellent
Vibration Dampening	Good

Chemical Resistance

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

Thermal Properties

Low Temperature Range	-48°C to -34°C
Minimum for Continuous Use (Static)	-46°C
Brittle Point	-59°C
High Temperature Range	+121°C to +177°C
Maximum for Continuous Use (Static)	+177°C

Environmental Performance

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