Rubber Material Selection Guide
EA or Vamac®
Ethylene Acrylic Rubber

▪ Abbreviation	EA
▪ ASTM D-2000 Classification	EA
▪ Chemical Definition	Acrylic
▪ RRP Compound Number Category	18-0000 Series

Physical & Mechanical Properties

▪ Durometer or Hardness Range	35 – 95 Shore A
▪ Tensile Strength Range	500 – 3,000 PSI
▪ 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

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Chemical Resistance

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
Fuel, Extended (Oxygenated)	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
Refrigerant Halofluorocarbons	Poor to Good
Refrigerant Halofluorocarbons w/ Oil	Poor
Silicone Oil	Good to Excellent
Solvent Resistance	Poor

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Thermal Properties

■ Low Temperature Range	- 55º F to - 30º F
■ Minimum for Continuous Use (Static)	- 50º F
■ Brittle Point	- 75º F
■ High Temperature Range	+ 250º F to + 350º F
■ Maximum for Continuous Use (Static)	+ 350º F

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