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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

- **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

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 an EA / ethylene 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.