



Rubber Material Selection Guide EPDM or Ethylene Propylene

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|--------------------------------|--------------------------|
| ■ Abbreviation | EP, EPR, EPT, EPDM |
| ■ ASTM D-2000 Classification | AA, BA, CA, DA |
| ■ Chemical Definition | ethylene propylene diene |
| ■ RRP Compound Number Category | 80000 Series |

Physical & Mechanical Properties

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|-------------------------------|-------------------|
| ■ Durometer or Hardness Range | 30 – 90 Shore A |
| ■ Tensile Strength Range | 500 – 2,500 PSI |
| ■ Elongation (Range %) | 100 % – 700 % |
| ■ Abrasion Resistance | Good |
| ■ Adhesion to Metal | Good to Excellent |
| ■ Adhesion to Rigid Materials | Good to Excellent |
| ■ Compression Set | Poor to Excellent |
| ■ Flex Cracking Resistance | Good |
| ■ Impact Resistance | Very Good |
| ■ Resilience / Rebound | Fair to Good |
| ■ Tear Resistance | Fair to Good |
| ■ Vibration Dampening | Fair to Good |

Chemical Resistance

- | | |
|---------------------------------|-------------------|
| ■ Acids, Dilute | Excellent |
| ■ Acids, Concentrated | Excellent |
| ■ Acids, Organic (Dilute) | Excellent |
| ■ Acids, Organic (Concentrated) | Fair to Good |
| ■ Acids, Inorganic | Excellent |
| ■ Alcohol's | Good to Excellent |



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Chemical Resistance

■ Aldehydes	Good to Excellent
■ Alkalies, Dilute	Excellent
■ Alkalies, Concentrated	Excellent
■ Amines	Fair to Good
■ Animal & Vegetable Oils	Good
■ Brake Fluids, Non-Petroleum Based	Good to Excellent
■ Diester Oils	Poor
■ Esters, Alkyl Phosphate	Excellent
■ Esters, Aryl Phosphate	Excellent
■ Ethers	Fair
■ Fuel, Aliphatic Hydrocarbon	Poor
■ Fuel, Aromatic Hydrocarbon	Poor
■ Fuel, Extended (Oxygenated)	Poor
■ Halogenated Solvents	Poor
■ Hydrocarbon, Halogenated	Poor
■ Ketones	Good to Excellent
■ Lacquer Solvents	Poor
■ LP Gases & Fuel Oils	Poor
■ Mineral Oils	Poor
■ Oil Resistance	Poor
■ Petroleum Aromatic	Poor
■ Petroleum Non-Aromatic	Poor
■ Refrigerant Ammonia	Good
■ Refrigerant Halofluorocarbons	R-12, R-13
■ Refrigerant Halofluorocarbons w/ Oil	Poor
■ Silicone Oil	Excellent
■ Solvent Resistance	Poor



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Thermal Properties

- | | |
|---------------------------------------|----------------------|
| ■ Low Temperature Range | - 60° F to - 40° F |
| ■ Minimum for Continuous Use (Static) | - 60° F |
| ■ Brittle Point | - 70° F |
| ■ High Temperature Range | + 220° F to + 300° F |
| ■ Maximum for Continuous Use (Static) | + 300° F |

Environmental Performance

- | | |
|------------------------|-------------------|
| ■ Colorability | Good to Excellent |
| ■ Flame Resistance | Poor |
| ■ Gas Permeability | Fair to Good |
| ■ Odor | Good |
| ■ Ozone Resistance | Good to Excellent |
| ■ Oxidation Resistance | Excellent |
| ■ Radiation Resistance | Good to Excellent |
| ■ Steam Resistance | Excellent |
| ■ Sunlight Resistance | Excellent |
| ■ Taste Retention | Good to Excellent |
| ■ Weather Resistance | Excellent |
| ■ Water Resistance | 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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