Rubber Material Selection Guide
EPDM or Ethylene Propylene

- 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**

- 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
## 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 an EP or ethylene propylene 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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