Rubber Material Selection Guide  
NR or Natural Rubber  
Polyisoprene

- Abbreviation: NR  
- ASTM D-2000 Classification: AA  
- Chemical Definition: Polyisoprene  
- Compound Number Category: 10000 Series

物理与机械性能
- 钢度或硬度范围: 30 – 95 Shore A  
- 抗拉强度范围: 500 – 3,500 PSI  
- 伸长率 (范围 %): 300 % – 900 %  
- 摩擦阻力: 良好至优秀  
- 金属粘附性: 优秀  
- 刚性材料粘附性: 优秀  
- 卸压性: 优秀  
- 弯曲开裂耐久性: 优秀  
- 冲击耐久性: 良好至优秀  
- 弹性 / 冲击: 优秀  
- 切口耐久性: 良好至优秀  
- 振动减震: 良好至优秀

化学性能
- 酸, 稀释: 良好至优秀  
- 酸, 浓缩: 从差到好  
- 有机酸 (稀释): 良好至优秀  
- 有机酸 (浓缩): 良好  
- 无机酸: 良好
## Chemical Resistance

- Alcohol’s: Good to Excellent
- Aldehydes: Good
- Alkalies, Dilute: Fair to Excellent
- Alkalies, Concentrated: Fair to Good
- Amines: Poor to Fair
- Animal & Vegetable Oils: Poor to Good
- Brake Fluids, Non-Petroleum Based: Good
- Diester Oils: Poor
- Esters, Alkyl Phosphate: Poor
- Esters, Aryl Phosphate: Poor
- Ethers: Poor
- Fuel, Aliphatic Hydrocarbon: Poor
- Fuel, Aromatic Hydrocarbon: Poor
- Fuel, Extended (Oxygenated): Poor
- Halogenated Solvents: Poor
- Hydrocarbon, Halogenated: Poor
- Ketones: Fair to Good
- 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: Good
- Solvent Resistance: Poor
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♦ Thermal Properties
  - Low Temperature Range: - 20º F to - 70º F
  - Minimum for Continuous Use (Static): - 60º F
  - Brittle Point: - 80º F
  - High Temperature Range: + 180º F to + 220º F
  - Maximum for Continuous Use (Static): + 180º F

♦ Environmental Performance
  - Colorability: Poor
  - Flame Resistance: Fair to Good
  - Gas Permeability: Fair to Good
  - Odor: Good to Excellent
  - Ozone Resistance: Poor
  - Oxidation Resistance: Good
  - Radiation Resistance: Fair to Good
  - Steam Resistance: Good
  - Sunlight Resistance: Poor to Fair
  - Taste Retention: Fair to Good
  - Weather Resistance: Poor to Fair
  - Water Resistance: Excellent

For assistance in identifying the appropriate polymer or material, or to develop and formulate a NR or natural 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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