Rubber Material Selection Guide
SBR or Styrene Butadiene

- Abbreviation: SBR
- ASTM D-2000 Classification: AA, BA
- Chemical Definition: Styrene Butadiene
- RRP Compound Number Category: 40000 Series

物理与力学性能
- Durometer or Hardness Range: 30 – 95 Shore A
- Tensile Strength Range: 500 – 3,000 PSI
- Elongation (Range %): 450 % – 600 %
- Abrasion Resistance: Excellent
- Adhesion to Metal: Excellent
- Adhesion to Rigid Materials: Excellent
- Compression Set: Good to Excellent
- Flex Cracking Resistance: Good
- Impact Resistance: Excellent
- Resilience / Rebound: Good
- Tear Resistance: Fair to Excellent
- Vibration Dampening: Fair to Good

化学性能
- Acids, Dilute: Fair to Good
- Acids, Concentrated: Poor to Fair
- Acids, Organic (Dilute): Good
- Acids, Organic (Concentrated): Poor to Good
- Acids, Inorganic: Fair to Good
- Alcohol’s: Good
- Aldehydes: Poor to Fair
Chemical Resistance

- Alkalies, Dilute: Fair to Good
- Alkalies, Concentrated: Fair to Good
- Amines: Poor to Good
- Animal & Vegetable Oils: Poor to Good
- Brake Fluids, Non-Petroleum Based: Poor to 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: Poor 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: Poor
- Solvent Resistance: Poor
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♦ Thermal Properties

- Low Temperature Range - 60° F to - 30° F
- Minimum for Continuous Use (Static) - 60° F
- Brittle Point - 80° F
- High Temperature Range + 210° F to + 250° F
- Maximum for Continuous Use (Static) + 225° F

♦ Environmental Performance

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

For assistance in identifying the appropriate polymer or material, or to develop and formulate a SBR or styrene butadiene 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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