



Rubber Material Selection Guide SBR or Styrene Butadiene

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

Physical & Mechanical Properties

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|-------------------------------|-------------------|
| ■ 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 |

Chemical Resistance

- | | |
|---------------------------------|--------------|
| ■ 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 |



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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 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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