Styrene Butadiene Rubber (SBR)
ASTM D1418 & ISO 1629 Designation: SBR
ASTM D2000, SAE J200 Type/Class: AA, BA
Mil-R-3065 (Mil-Std 417) Class: RS

**Advantages:** Similar properties to NR but with improved ageing and temperature resistance; good dynamic, mechanical and fatigue properties; high strength, resilience and abrasion properties; good resistance to many inorganic chemicals.

**Limitations:** Suffers from poor tear strength, oxidation, ozone, UV and weathering; limited oil resistance; not recommended for use in contact with acids and organic liquids; temperature resistance is still low.

### Physical & Mechanical Properties
- Durometer or Hardness Range: 30-95 Shore A
- Tensile Strength Range: 500 - 2,900 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
- Alcohols: Good
- Aldehydes: Poor to Fair
- 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
- Esthers: Poor
- Fuel, Aliphatic Hydrocarbon: Poor
- Fuel, Aromatic Hydrocarbon: Poor
- Fuel, Extended (Oxygenated): Poor
- Halogenated Solvents: Poor
- Hydrocarbon, Halogenated: Poor
- Ketones (MEK, acetone): 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, R13
- Refrigerant Halofluorocarbons w/ Oil: Poor
- Silicone Oil: Poor
- Solvent Resistance: Poor

### Thermal Properties
- General Temperature Range: -60°F to 250°F
- Min. for continuous Use (Static): -60°F
- Brittle Point: -80°F
- Max. 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
- Weather Resistance: Fair to Good
- Water Resistance: Good to Excellent