

Abbreviation BR

Chemical Definition Polybutadiene

Physical & Mechanical Properties

Durometer or Hardness Range 45 – 80 Shore A
Tensile Strength Range 35 – 140 kg/cm²
Elongation (Range %), 450 % – 650 %
Abrasion Resistance, Fair to Excellent
Adhesion to Metal, Good
Adhesion to Rigid Materials, Fair to Good
Compression Set, Good to Excellent
Flex Cracking Resistance, Fair to Excellent
Impact Resistance, Poor to Good
Resilience / Rebound, Fair to Excellent
Tear Resistance, Poor to Good
Vibration Dampening, Fair to Good

Thermal Properties

Low Temperature Range -101.1 °C to - 73.3 °C
Minimum for Continuous Use (Static) - 67.7 °C
Brittle Point - 73.3 °C
High Temperature Range + 82.2 °C to + 104.4 °C
Maximum for Continuous Use (Static) + 93.3 °C

Environmental Performance

Colorability, Good
Flame Resistance, Poor
Gas Permeability, Good
Odor, Good
Ozone Resistance, Poor
Oxidation Resistance, Good to Excellent

Chemical Resistance

Acids Dilute, Fair to Good
Acids Concentrated, Fair to Good
Acids Organic (Dilute), Good
Acids Organic (Concentrated), Poor
Acids Inorganic, Good
Alcohols, Fair to Good
Aldehydes, Good
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, 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