

Abbreviation NR

Chemical Definition: Polyisoprene

Physical & Mechanical Properties

Durometer or Hardness Range, 30 – 95 Shore A
Tensile Strength Range, 35 – 250 kg/cm²
Elongation (Range %), 300 % – 900 %
Abrasion Resistance, Good to Excellent
Adhesion to Metal, Excellent
Adhesion to Rigid Materials, Excellent
Compression Set, Excellent
Flex Cracking Resistance, Excellent
Impact Resistance, Good to Excellent
Resilience / Rebound, Excellent
Tear Resistance, Good to Excellent
Vibration Dampening, Good to Excellent

Thermal Properties

Low Temperature Range - 28.8 °C to - 5.6 °C
Minimum for Continuous Use (Static) - 51.1 °C
Brittle Point - 62.2 °C
High Temperature Range + 82.2 °C to + 104.4 °C
Maximum for Continuous Use (Static) + 82.2 °C

Environmental Performance

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

Chemical Resistance

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