Acrylonitrile Butadiene Rubber (Nitrile)

ASTM D1418 & ISO 1629 Designation: **NBR**
ASTM D2000, SAE J200 Type/Class: **BF, BG , BK, CH**
Mil-R-3065 (Mil-Std 417) Class: **SB**

Ames Rubber Manufacturing
Ames Industrial • DWA Industrial • Avon Rubber • Armco

Advantages: Good resistance to oil, inorganic chemical and aliphatic hydrocarbon resistant rubber; good mechanical properties and gas impermeability; good adhesion characteristics.

Limitations: Moderate ageing resistance; relatively poor resistance to low temperatures; limited ozone resistance. Most classes of organic chemicals will attack it; not recommended for use with polar liquids such as alcohols, aldehydes or ketones.

Physical & Mechanical Properties

Durometer or Hardness Range:	20-95 Shore A
Tensile Strength Range:	200 - 3,500 PSI
Elongation (Range%):	350% - 650%
Abrasion Resistance:	Good to Excellent
Adhesion to Metal:	Excellent
Adhesion to Rigid Materials:	Good to Excellent
Compression Set:	Good to Excellent
Flex Cracking Resistance:	Fair to Good
Impact Resistance:	Fair to Good
Resilience/Rebound:	Good
Tear Resistance:	Good to Excellent
Vibration Dampening:	Fair to Good

Thermal Properties

General Temperature Range	-70°F to 250°F
Min. for continuous Use (Static):	-40°F
Brittle Point:	-70°F
Max. for Continuous Use (Static):	300°F

Environmental Performance

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

Chemical Resistance

Acids, Dilute:	Good
Acids, Concentrated:	Poor to Fair
Acids, Organic (Dilute):	Good
Acids, Organic (Concentrated):	Poor
Alcohols:	Fair to Good
Aldehydes:	Poor to Fair
Alkalies, Dilute:	Good
Alkalies, Concentrated:	Poor to Good
Amines:	Poor
Animal & Vegetable Oils:	Good to Excellent
Brake Fluids, Non-Petroleum Based:	Poor
Diester Oils:	Fair to Good
Esters, Alkyl Phosphate:	Poor
Esters, Aryl Phosphate:	Poor to Fair
Esthers:	Poor
Fuel, Aliphatic Hydrocarbon:	Good to Excellent
Fuel, Aromatic Hydrocarbon:	Fair to Good
Fuel, Extended (Oxygenated):	Fair to Good
Halogenated Solvents:	Poor
Hydrocarbon, Halogenated:	Poor to Fair
Ketones (MEK, acetone):	Poor
Lacquer Solvents:	Fair
LP Gases & Fuel Oils:	Excellent
Mineral Oils:	Excellent
Oil Resistance:	Excellent
Petroleum Aromatic:	Good
Petroleum Non-Aromatic:	Excellent
Refrigerant Ammonia:	Good
Refrigerant Halofluorocarbons:	R-11, R-12, R-13
Refrigerant Halofluorocarbons w/ Oil:	R-11, R-12
Silicone Oil:	Good
Solvent Resistance:	Good to Excellent