

**PRODUCT COMPARISON TABLE**

	Natural Rubber	Silicone	EPDM	Neoprene	Nitrile	Fluorocarbon	SBR	Urethane
Chemical Name	Polyisoprene	Polysiloxane	Ethylene Propylene	Chloroprene	Acrylonitrile Butadiene	Fluorinated Hydrocarbon	Styrene Butadiene	Polyester/ Polyether Urethane
SAE 2000-ASTM D-2000	AA	FC, FE, GE	BA, CA, DA	BC, BE	BF, BG, BK	HK	AA, BA	BG

Classification

ASTM Designation (D-1418)	NR	Psi, Ppsi, Si, Vsi	EPDM, EPR	CR	NBR	FKM	SBR	AU, EU
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Physical Properties

Specific Gravity	0.93	0.95 to 1.20	0.88	1.23	1.00	1.4 to 1.95	0.94	1.05 to 1.25
Durometer, Range	30-100	25-90	30-90	40-95	30-90	55-90	40-100	55-100
Tensile Strength	E	F-G	VG	VG	VG	VG	F-G	E
Elongation	VG-E	VG-E	G	G	G	F-G	G	G-VG
Compression Set	G	G-E	G	F-G	G	G-E	G	G-E
Heat Resistance	F	E	VG-E	F-G	G	E	F-G	F-G
Resilience or Rebound	E	G	G	VG	F-G	F	F-G	F-E
Impact Resistance	E	P-G	G	G	F	E	E	G-E
Abrasion Resistance	E	P-F	G-E	G-E	G-E	F-G	G-E	E
Tear Resistance	E	P-F	F-G	F-G	F-G	F	F	E
Cut Growth	E	P-F	G	G	G	P-F	G	G-E
Flame Resistance	P	F-G	P	G	G	VG-E	P	P-F
Impermeability, Gas	F	F-G	F-G	F-G	G	E	F	P-F
Weathering Resistance	P-F	E	E	VG	F-G	E	F	G-E

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	Natural Rubber	Silicone	EPDM	Neoprene	Nitrile	Flurocarbon	SBR	Urethane
Low Temperature Limit	-10° to -50° F	-65° to -150° F	-20° to -60° F	-10° to -50° F	-30° to -40° F	+10° to -40° F	-0° to -50° F	-10° to -50° F
High Temperature Limit	158° to 225° F	400° to 550° F	300° to 350° F	225° F	275° F	400° to 450° F	158° to 225° F	250° F

Chemical Resistance Properties

Acid	F-G	F	G	G	G	G	F-G	P-F
Alcohols	G	G	F-G	VG	F-G	F-E	G	F-G
Aliphatic Hydrocarbon Solvents	P	P-F	P	G	E	E	P	G
Alkali	F	P	VG	E	VG	E	F	P
Animal and Vegetable Oils	F	G	G	G	VG	E	F	G
Aromatic Hydrocarbon Solvents	P	P-F	P	P-F	F-G	E	P	P-F
Oil & Gasoline	P	P-F	P	F-G	G-E	E	P	G-E
Oxygenated Solvents	G	F	VG	P-F	P	P	G	P
Water	E	G-E	E	G	G-E	G	G-E	G

Key: E=Excellent; VG=Very Good; G=Good; F=Fair; P=Poor

The range of properties that can be developed for any given polymer is limited by the material and will vary within that range with compound formulation. All properties in a particular class are not found in a single compound. It is often possible to raise or lower some rating to acceptable levels through mixing compounds.