

NON-SILICONE RUBBER PROPERTY COMPARISON

Common Name	Natural	SBR	Butyl	EPDM	Neoprene®	Nitrile NBR or PVC/NBR	Viton®
Chemical Name	Natural or Poly-isoprene	Styrene Butadiene	Isobutylene Isoprene	Ethylene Propylene	Polychloroprene	Acrylonitrile Butadiene	Fluorocarbon
Maximum Temperature	70° C	70° C	100° C	120° C	125° C	100° C	220° C
Material Designation	AA	AA	AA	BA,CA,DA	BC,BE	BF,BG,BK,CH	HK
ASTM Designation	NR	SBR	IIR	EPDM	CR	NBR	FKM
Tensile Strength (psi)	Over 3000	Over 2000	Over 2000	Over 2000	Over 2000	Over 2000	Over 1500
Hardness Range (Durometer A)	30-90	40-90	40-75	50-90	20-80	40-95	55-80
Tear Resistance	Very Good	Fair	Good	Fair	Good	Fair	Fair
Abrasion Resistance	Excellent	Good to Excellent	Good	Good to Excellent	Very Good	Good	Fair
Compression Set	Excellent	Good	Fair	Good	Good	Good	Good
Resilience							
Cold	Excellent	Good	Poor	Good	Good	Good	Good
Hot	Excellent	Good	Very Good	Very Good	Very Good	Good	Good
Impermeability to Gases	Good	Fair	Outstanding	Good	Good	Good	Good
Solvent Resistance							
Aliphatic Hydrocarbons	Poor	Poor	Poor	Poor	Fair to Good	Excellent	Excellent
Aromatic Hydrocarbons	Poor	Poor	Poor	Poor	Poor	Poor	Excellent
Oxygenated (Ketones, etc)	Poor	Poor	Good	Good	Poor	Poor	Poor
Lacquer Solvents	Poor	Poor	Poor	Poor	Poor	Poor	Good
Resistance To:							
Oil and Gasoline	Poor	Poor	Poor	Poor	Good	Excellent	Excellent
Animal Oils	Poor	Poor	Fair	Fair	Fair	Excellent	Excellent
Water Absorption	Very Good	Very Good	Very Good	Very Good	Good	Very Good	Excellent
Oxidation	Good	Fair	Excellent	Excellent	Very Good	Good	Excellent
Ozone	Poor	Poor	Fair to Good	Outstanding	Very Good	Fair	Excellent
Sunlight Aging	Poor	Poor	Very Good	Outstanding	Very Good	Poor	Excellent
Heat Aging	Fair	Good	Good	Very Good	Good	Good	Excellent
Low Temperature	Very Good	Very Good	Good	Very Good	Good	Fair to Good	Excellent
Flame	Poor	Poor	Poor	Poor	Good	Poor	Very Good
Vegetable Oils	Poor	Poor	Fair	Fair	Good	Good	Excellent
Chlorinated Hydrocarbons	Poor	Poor	Poor	Poor	Poor	Fair	Excellent