PROPERTIES OF COMMON ELASTOMERS

COMMON NAME	Natural	SBR	Butyl	EPDM	Nitrile/Buna-N	Neoprene	Urethane	Silicone	Viton™	Butadiene
CHEMICAL NAME	Polyisoprene	Styrene Butadiene	Isobutylene Isoprene	Ethylene Propylene	Butadiene Acrylonitrile	Chloroprene	Polyester/ Polyether Urethane	Polysiloxane	Fluorinated Hydrocarbon	Polybutadiene

A: Very Good B: Good C: Fair D: Poor NR: Not recommended

PROPERTIES & CHARACTERISTICS										
ASTM D2000 and SAE J200 Designation	AA	AA,BA	AA,BA,CA	BA,DA	BF,BG,BK	BC,BE	BG	FC,FE,GE	HK	AA
ASTM Designation (D1418)	NR	SBR	IIR	EPDM,EPM	NBR	CR	AU,EU	Q, MQ, VMQ, PVMQ	FKM	BR
Specific Gravity	0.92	0.94	0.92	0.86	1.0	1.25	1.25	1.1-1.6	1.86	0.91
Durometer Range Available	30-90	40-80	20-90	40-90	40-95	10-90	5-100	20-90	60-90	40-90
Tensile Strength, PSI	4500	3500	3000	2500	4000	4000	5000	1500	3000	3000
Elongation	650	600	850	600	650	600	750	900	300	650
Compression Set	A	B	B	B	B	B	D	B	B	B
Resilience	High	Med	Low	Med	Med-Low	High	High-Low	High-Low	Low	High
Electrical Resistance (Polymer)	A	A	A	A	D	C	B	A	B	A
Impact Strength	A	A	B	B	C	B	A	D	B	B
Abrasion Resistance	A	A	C	B	A	A	A	C	B	A
Tear Resistance	A	C	B	C	B	B	A	C	B	B
Heat Aging at 212˚F	C	B	A	B	B	B	B	A	A	C
Flame Resistance	D	D	D	D	D	B	D	A	A	D
High Temperature Service Limits ˚F+ ⬆	160	220	220	260	220	220	160	400	485	160
Low Temperature Stiffening ˚F ⬇	-20 to -50	0 to -50	-20 to -50	-10 to -40	+30 to -20	+10 to -50	-10 to -30	-60 to-180	+10 to -10	-30 to -60
Weather-Sunlight Aging	D	D	A	A	D	B	A	A	A	D
Ozone Cracking	NR	NR	A	A	C	A	A	A	A	NR
Water	A	B	A	A	A	B	C	A	A	A
Steam	B	C	A	B	C	B	D	C	B	B