

Industry Packing & Seal, Inc.

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Material Selection Chart

Base elastomer	NR	IR	SBR	IIR	BR	EPDM	CR	NBR	PU	SI	CSM	AC	FL
Max temperature	212	212	225	250	212	300	250	250	250	550	250	350	350
Min temperature	-60	-60	-60	-50	-80	-60	-40	-60	-65	-160	-40	-20	-20
Max tensile (psi)	4000	4000	3500	3000	3000	3000	4000	4000	8000	1500	2800	2200	2400
Max elongation %	700	750	700	700	700	300	600	600	700	800	500	400	350
Compression set	G	F	G	F	F	F	G	G	E	VG	G	G	VG
Resilience	O	O	G	F	O	G	E	G	VG	G	G	G	F
Abrasion resist	E	E	E	VG	E	VG	E	E	O	P	E	G	G
Flame resist	VP	VP	VP	VP	VP	VP	G	P	P	G	G	P	E
Weather resist	F	F	F	VG	F	E	VG	F	E	E	E	VG	E
Ozone resist	VP	VP	VP	E	VP	O	E	VP	E	E	O	E	O
Water swell	G	E	E	E	E	E	G	E	F	VG	3	F	4
Acid resist	G	G	G	E	G	VG	G	G	P	F	E	F	VG
Gasoline resist	VP	VP	VP	VP	VP	VP	G	E	E	P	F	E	E
Oil resist	VP	VP	VP	VP	VP	VP	G	VG	VG	P-VG	G	E	O
Synthetic lubricant (Diesters)	P	P	VP	F	P	P	VP	G	VP	P	VP	G	G
Hydraulic Fld. (silicate)	VP	VP	P	F	VP	G	G	F	NK	VP	G	G	G
Hydraulic Fld. (phosphate)	P	P	VP	G	P	VG	VP	VP	VP	G	P	VP	VP
Bond rating	E	E	E	VG	E	VP-G	VG	VG	G	VG	G	G	F

NR-Natural Rubber **IR**-Synthetic Polyisoprene **SBR**-Styrene Butadiene **IIR**-Butyl **BR**-Polybutadiene **EPDM**-Ethylene Propylene **CR**-Chloroprene/Neoprene **NBR**-Nitrile **PU**-Urethane **SI**-Silicone **CSM**-Hypalon **AC**-Acrylic **FL**-Fluoroelastomers (Viton)

Ratings: **VP**-very poor **P**-poor **F**-fair **G**-good **VG**-very good

E-excellent **O**-outstanding

