



**FUJIKURA
COMPOSITES**

Elastomer Selection Guide (PDF Version)

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Polymer Type	IER Code No.	Material Designation ASTM D2000 SAE J200	Physical Properties				Service Temperature			Ozone Resistance	Fluid Resistance						
			Hardness Range Shore A, Pts.	Tensile Strength Max., PSI	Elongation, Max. Percent	Compression Set	Continuous Max. 1000 Hrs. / Air	Low Temperature			Gasoline (Aromatics)	Gasohol-M (Methanol)	Gasohol-E (Ethanol)	Lube & Amp; Grease (Aliphatics)	Water	Acids	Oxygenated Solvents (Ketones)
								Dynamic	Static								
Chloroprene (Neoprene)	1	BC, BE	*30-95	4000	800	Good	225°F	-40°F	-65°F	Good	Poor	Poor	Poor	Fair-Good	Good	Good-Excellent	Poor-Fair
Epichlorohdrin	2	CH	*40-95	250	350	Fair-Good	275°F	-50°F	-75°F	Excellent	Good-Excellent	Fair-Good	Fair-Good	Excellent	Fair	Fair-Good	Poor-Fair
Nitrile (Buna-N)	4	BF, BG, BK, CH	40-95	4000	800	Good	275°F	-65°F	-65°F	Fair-Good	Good-Excellent	Fair-Good	Good	Excellent	Good-Excellent	Fair-Good	Poor
Fluorocarbon Elastomer (Viton®, Technoflon®, Fluorel®)	5	HK	*40-95	3000	500	Excellent	400°F	-5°F	-40°F	Excellent	Excellent	Good-Excellent	Excellent	Excellent	Good-Excellent	Good	Poor
Fluorocarbon Elastomer (Kel-F®)	6	HK	50-85	3500	500	Good	425°F	-4°F	-40°F	Excellent	Good-Excellent	Good	Good	Excellent	Excellent	Excellent	Poor
Silicone	8	FC, FE, GE	15-90	1500	800	Good-Excellent	450°F	-100°F	-180°F	Excellent	Poor	Poor	Poor	Fair	Excellent	Fair-Good	Fair-Good
Fluorosilicone	9	FK	40-85	1300	350	Good	450°F	-70°F	-100°F	Excellent	Good-Excellent	Good	Good-Excellent	Excellent	Excellent	Good-Excellent	Poor
EPDM-EPR	10	BA, CA, DA	*30-95	3000	800	Good	300°F	-60°F	-80°F	Excellent	Poor	Poor	Poor	Poor-Fair	Excellent	Excellent	Good-Excellent
Polyacrylate	12	DF, DH	*25-85	2500	400	Good	350°F	-20°F	-40°F	Excellent	Poor-Fair	Poor	Poor	Good-Excellent	Poor-Fair	Poor-Fair	Poor
Butyl	13	AA	*20-80	3000	800	Good	212°F	-70°F	-90°F	Good-Excellent	Poor	Poor	Poor	Poor	Good-Excellent	Excellent	Good-Excellent
Halo Butyl	14	BA	*30-90	3000	800	Good	250°F	-70°F	-90°F	Good-Excellent	Poor	Poor	Poor	Poor	Good-Excellent	Excellent	Good-Excellent
Polyurethane	15	BG	40-95	5000	700	Poor	250°F	-50°F	-70°F	Good-Excellent	Fair-Good	Fair-Good	Good	Good	Fair	Poor-Fair	Poor
SBR (GRS)	17	AA, BA	*40-80	3500	600	Good	158°F	-55°F	-85°F	Poor-Fair	Poor	Poor	Poor	Poor	Excellent	Fair-Good	Good
Natural Rubber	18	AA	*30-90	4500	700	Good-Excellent	158°F	-55°F	-85°F	Poor-Fair	Poor	Poor	Poor	Poor	Excellent	Fair-Good	Good
Ethylene Acrylic (Vamac®)	19	EE	*40-90	2500	700	Good-Excellent	350°F	-40°F	-60°F	Excellent	Poor-Fair	Poor	Poor	Good	Good-Excellent	Fair	Poor
Ethylene Propylene Fluorocarbon (AFLAS®)	21	HK	60-95	3200	400	Good	400°F	-20°F	-50°F	Excellent	Fair	Fair	Fair	Excellent	Excellent	Excellent	Fair
Perfluorelastomer (Perfluor®)	22	KK	55-65	1800	250	Good	400°F	0°F	-20°F	Excellent	Excellent	Excellent	Excellent	Excellent	Good-Excellent	Excellent	Excellent
Hydrogenated Nitrile (HNBR)	24	DH	30-100	4000	400	Good	325°F	-30°F	-50°F	Excellent	Good-Excellent	Fair-Good	Good	Excellent	Good-Excellent	Fair-Good	Poor
Specialty Fluoroelastomer	25	HK	60-95	2200	125	Good	400°F	0°F	-20°F	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Carboxylated Nitrile	26	BF, BG, BK, CH	*55-95	4000	800	Good	275°F	-40°F	-60°F	Fair-Good	Good-Excellent	Fair-Good	Good	Excellent	Good-Excellent	Fair-Good	Poor
Fluorocarbon Elastomer (Low Temperature)	27	HK	50-95	2500	500	Excellent	400°F	-35°F	-40°F	Excellent	Excellent	Good-Excellent	Excellent	Excellent	Good-Excellent	Good	Poor
(LSR) Liquid Silicone	28	FE, GE	*15-90	1500	800	Good-Excellent	450°F	-100°F	-180°F	Excellent	Poor	Poor	Poor	Fair	Excellent	Fair-Good	Fair-Good
(F-LSR) Liquid Fluorosilicone	29	FK	20-65	3000	500	Good	400°F	-70°F	-100°F	Excellent	Good-Excellent	Good	Good-Excellent	Excellent	Excellent	Good-Excellent	Poor

*Lower Durometer available contingent on product configuration.

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Polymer Type	IER Code	Material Designation	Physical Properties				Service Temperature			Ozone Resistance	Fluid Resistance						
			Hardness (Shore A)	Tensile Strength (psi)	Elongation (%)	Compression Set (%)	Continuous (°F)	Low Temperature (°F)			Gasoline (A)	Gasohol-M	Gasohol-E	Lube & Am	Water	Acids	Oxygenated
								Dynamic	Static								
Chloroprene (Neoprene)	1	BC, BE	*30-95	4000	800	Good	225°F	-40°F	-65°F	Good	Poor	Poor	Poor	Fair-Good	Good	Good-Exce	Poor-Fair
Epichlorohydrin	2	CH	*40-95	250	350	Fair-Good	275°F	-50°F	-75°F	Excellent	Good-Exce	Fair-Good	Fair-Good	Excellent	Fair	Fair-Good	Poor-Fair
Chlorosulfonated Polyethylene (Hypalon® reg.)	3	CE	40-95	4000	500	Fair-Good	250°F	-40°F	-60°F	Excellent	Poor-Fair	Poor	Poor	Fair-Good	Good	Excellent	Good
Nitrile (Buna-N)	4	BF, BG, BK	40-95	4000	800	Good	275°F	-65°F	-65°F	Fair-Good	Good-Exce	Fair-Good	Good	Excellent	Good-Exce	Fair-Good	Poor
Fluorocarbon Elastomer (Viton®, Technoflon®, Fluorel®)	5	HK	*40-95	3000	500	Excellent	400°F	-5°F	-40°F	Excellent	Excellent	Good-Exce	Excellent	Excellent	Good-Exce	Good	Poor
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EPDM-EPR	10	BA, CA, DA	*30-95	3000	800	Good	300°F	-60°F	-80°F	Excellent	Poor	Poor	Poor	Poor-Fair	Excellent	Excellent	Good-Exce
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Polyurethane	15	BG	40-95	5000	700	Poor	250°F	-50°F	-70°F	Good-Exce	Fair-Good	Fair-Good	Good	Good	Fair	Poor-Fair	Poor
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Ethylene Propylene Fluorocarbon (AFLAS®, Fluorel II®)	21	HK	60-95	3200	400	Good	400°F	-20°F	-50°F	Excellent	Fair	Fair	Fair	Excellent	Excellent	Excellent	Fair
Perfluorelastomer (Perfluor®)	22	HK	55-65	1800	250	Good	400°F	0°F	-20°F	Excellent	Excellent	Excellent	Excellent	Excellent	Good-Exce	Excellent	Excellent
Chlorinated Polyethylene CPE (Tyrin®)	23	CE	40-90	2700	600	Good	300°F	-50°F	-70°F	Excellent	Poor	Poor	Poor	Good	Good	Poor	Poor
Hydrogenated Nitrile (HNBR)	24	CH	30-100	4000	400	Good	325°F	-30°F	-50°F	Excellent	Good-Exce	Fair-Good	Good	Excellent	Good-Exce	Fair-Good	Poor
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