R.F.Carlson Co.

Sarasota,FL 800-881-3399 Kennesaw,GA 800-813-7120

Polymer Chart

ASTM D1418 designation NBR			Jai asula,i L O	JU-00 1-0033		1 000-010-71	ک	1 Orymor	
ASTM D1418 designation NBR FKM VMG FVMG BLDE BLACK BLA	POLYMER	NITRILE	FLUOROCARBON	SILICONE	FLUOROSILICONE		NEOPRENE		PERFLUORO- ELASTOMER
STANDARIO COLOR BLACK BLACK RED/RUST BLUE BLACK BLACK BLACK BLACK ALTERNATE COLOR VARIOUS BROWN BLACK NONE PURPLE RED GREEN WHITE DUROMETER RANGE 30 90 40 95 30 80 40 90 30 90 30 90 30 95 45 95 80 90 90 90 90 90 90 90 90 90 90 90 90 90									FFKM
DUROMETER RANGE 30 - 90			BLACK	RED/RUST	BLUE	BLACK	BLACK	BLACK	BLACK
TEMP. RANGE, TYPICAL South + 250 -15 to + 400 -65 to + 400 -65 to + 450 -50 to + 300 -40 to + 250 -30 to + 300 +5 to + 55 CELSIUS - C -35 to + 120 -25 to + 200 -55 to + 200 -55 to + 175 -45 to + 150 -40 to + 120 -35 to + 150 -15 to + 20 PHYSICAL PROPERTIES	ALTERNATE COLOR	VARIOUS	BROWN	BLACK	NONE	PURPLE	RED	GREEN	WHITE
FAHRENHEIT - F	DUROMETER RANGE	30 - 90	40 - 95	30-80	40 - 90	30 - 90	30 - 95	45 - 95	60 - 90
CELSIUS - C -35 to +120 -25 to +200 -55 to +200 -55 to +175 -45 to +150 -40 to +120 -35 to +150 -15 to +20 PHYSICAL PROPERTIES TENSILE STRENGTH, PSI 2100 1850 930 1875 1875 2375 2475 2400 ELONGATION % 460 190 220 250 285 325 275 180 COMPRESSION SET (registrance) GOOD GOOD GOOD GOOD FAIR GOOD EXCELLENT EXCELLENT EXCELLENT GOOD FAIR GOOD GOOD GOOD GOOD EXCELLENT EXCELLENT EXCELLENT EXCELLENT EXCELLENT EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT FAIR GOOD GOOD EXCELLENT EXCE	TEMP. RANGE, TYPICAL								
Physical Properties 2100	FAHRENHEIT - F	- 30 to +250	- 15 to + 400	- 65 to + 400	- 65 to + 350	- 50 to + 300	- 40 to + 250	- 30 to + 300	+ 5 to + 550
TENSILE STRENGTH, PSI 2100	CELSIUS - C	- 35 to +120	- 25 to + 200	- 55 to + 200	- 55 to + 175	- 45 to + 150	- 40 to + 120	- 35 to + 150	- 15 to + 285
ELONGATION	PHYSICAL PROPERTIES								
COMPRESSION SET (resistance) GOOD GOOD EXCELLENT GOOD GOOD FAIR-GOOD GOOD GOOD MECHANICAL PROPERTIES 1000 FAIR FAIR GOOD GOOD GOOD EXCELLENT IMPACT FAIR GOOD FAIR GOOD GOOD GOOD EXCELLENT GOOD EXCELLENT FAIR GOOD GOOD EXCELLENT GOOD EXCELLENT FAIR GOOD GOOD EXCELLENT GOOD EXCELLENT FAIR GOOD GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD	TENSILE STRENGTH, PSI	2100	1850	930	1875	1875	2375	2475	2400
MECHANICAL PROPERTIES IMPACT FAIR GOOD FAIR FAIR GOOD GOOD GOOD EXCELLENT ABRASION RESISTANCE EXCELLENT GOOD FAIR-POOR FAIR GOOD EXCELLENT EXCELLENT EXCELLENT TEAR RESISTANCE GOOD GOOD POOR POOR GOOD GOOD GOOD EXCELLENT RESISTANCE PROPERTIES WEATHER-SUNLIGHT AGING GOOD-FAIR EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT OZONE CRACKING FAIR-POOR EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT WATER GOOD GOOD EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT TYPICAL FLUID RESISTANCE FUELS GOOD EXCELLENT FAIR EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR GOOD EXCELLENT FAIR GOOD EXCELLENT GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR GOOD EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR GOOD EXCELLENT FOOR FAIR-GOOD EXCELLENT GOOD RETURN FAIR GOOD FAIR GOOD FAIR FAIR-GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT FOOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR FAIR GOOD EXCELLENT FAIR FAIR-FOOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD FAIR POOR FAIR GOOD FAIR FAIR-FOOR FAIR-F	ELONGATION %	460	190	220	250	285	325	275	180
IMPACT FAIR GOOD FAIR FAIR GOOD GOOD GOOD EXCELLENT EXCELLENT FAIR GOOD EXCELLENT GOOD EXCELLENT OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT EXCELLENT EXCELLENT GOOD GOOD EXCELLENT EXCELLENT GOOD EXCELLENT EXCELLENT GOOD GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT	COMPRESSION SET (resistance)	GOOD	GOOD-EXCELLENT	GOOD	GOOD	GOOD	FAIR-GOOD	GOOD	GOOD
ABRASION RESISTANCE EXCELLENT GOOD FAIR-POOR FAIR GOOD EXCELLENT EXCELLENT EXCELLENT TEAR RESISTANCE GOOD GOOD GOOD FOOR POOR GOOD GOOD GOOD EXCELLENT RESISTANCE PROPERTIES WEATHER-SUNLIGHT AGING GOOD-FAIR EXCELLENT EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT OZONE CRACKING FAIR-POOR EXCELLENT EXCELLENT EXCELLENT EXCELLENT FAIR GOOD-FAIR EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD GOOD EXCELLENT FAIR GOOD-FAIR EXCELLENT FAIR GOOD-FAIR	MECHANICAL PROPERTIES								
TEAR RESISTANCE GOOD GOOD POOR POOR GOOD GOOD GOOD EXCELLER RESISTANCE PROPERTIES WEATHER-SUNLIGHT AGING GOOD-FAIR EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT GOOD GOOD EXCELLENT	IMPACT	FAIR	GOOD	FAIR	FAIR	GOOD	GOOD	GOOD	EXCELLENT
ENVIRONMENTAL RESISTANCE PROPERTIES WEATHER-SUNLIGHT AGING GOOD-FAIR EXCELLENT EXCELLENT EXCELLENT GOOD GOOD EXCELLENT OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT EXCELLENT FAIR GOOD-FAIR EXCELLENT EXCELLENT EXCELLENT EXCELLENT FAIR GOOD-FAIR EXCELLENT EXCELLENT GOOD EXCELLENT GOOD GOOD EXCELLENT GOOD-FAIR G	ABRASION RESISTANCE	EXCELLENT	GOOD	FAIR-POOR	FAIR	GOOD	EXCELLENT	EXCELLENT	EXCELLENT
RESISTANCE PROPERTIES EXCELLENT EXCELLENT EXCELLENT EXCELLENT EXCELLENT GOOD GOOD EXCELLENT WEATHER-SUNLIGHT AGING GOOD EXCELLENT EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT OZONE CRACKING FAIR-POOR EXCELLENT EXCELLENT EXCELLENT FAIR GOOD-FAIR EXCELLENT WATER GOOD GOOD EXCELLENT GOOD EXCELLENT GOOD-FAIR GOOD-FAIR EXCELLENT RADIATION FAIR GOOD-FAIR EXCELLENT EXCELLENT GOOD-FAIR GOOD-FAIR GOOD TYPICAL FLUID RESISTANCE TUELS GOOD EXCELLENT EXCELLENT POOR FAIR-GOOD EXCELLENT EXCELLENT OILS - PETROLEUM BASED EXCELLENT EXCELLENT GOOD EXCELLENT FOOR FAIR-GOOD EXCELLENT GOOD KETONES - OXYGENATED POOR FAIR POOR POOR GOOD FAIR POOR FAIR-POOR FAIR-POOR		GOOD	GOOD	POOR	POOR	GOOD	GOOD	GOOD	EXCELLENT
OXIDATION GOOD EXCELLENT EXCELLENT EXCELLENT GOOD EXCELLENT GOOD EXCELLENT OZONE CRACKING FAIR-POOR EXCELLENT EXCELLENT EXCELLENT EXCELLENT FAIR GOOD-FAIR EXCELLENT GOOD EXCELLENT GOOD GOOD EXCELLENT GOOD GOOD EXCELLENT GOOD-FAIR GOOD-F									
OZONE CRACKING FAIR-POOR EXCELLENT EXCELLENT EXCELLENT FAIR GOOD-FAIR EXCELLENT WATER GOOD GOOD EXCELLENT GOOD EXCELLENT GOOD GOOD EXCELLENT RADIATION FAIR GOOD-FAIR EXCELLENT EXCELLENT GOOD-FAIR GOOD-FAIR FAIR GOOD TYPICAL FLUID RESISTANCE FUELS GOOD EXCELLENT FAIR EXCELLENT POOR FAIR-GOOD EXCELLENT EXCELLENT OILS - PETROLEUM BASED EXCELLENT EXCELLENT GOOD EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR GOOD EXCELLENT GOOD EXCELLENT KETONES - OXYGENATED POOR FAIR POOR POOR GOOD FAIR POOR EXCELLENT NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR GOOD EXCELLENT	WEATHER-SUNLIGHT AGING	GOOD-FAIR	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	GOOD	GOOD	EXCELLENT
WATER GOOD GOOD EXCELLENT GOOD EXCELLENT GOOD GOOD EXCELLENT RADIATION FAIR GOOD-FAIR EXCELLENT EXCELLENT GOOD-FAIR GOOD-FAIR FAIR GOOD TYPICAL FLUID RESISTANCE FUELS GOOD EXCELLENT FAIR EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD GOOD FAIR GOOD FAIR GOOD FAIR GOOD EXCELLENT GOOD GOOD EXCELLENT FAIR-FOOR FAIR GOOD GOOD EXCELLENT FAIR-FOOR FAIR GOOD GOOD EXCELLENT	OXIDATION	GOOD	EXCELLENT	EXCELLENT	EXCELLENT	GOOD	EXCELLENT	GOOD	EXCELLENT
RADIATION FAIR GOOD-FAIR EXCELLENT EXCELLENT GOOD-FAIR GOOD-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR-FOOR-FAIR GOOD-FAIR-FOOR-FAIR-F	OZONE CRACKING	FAIR-POOR	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	FAIR	GOOD-FAIR	EXCELLENT
TYPICAL FLUID RESISTANCE FUELS GOOD EXCELLENT FAIR EXCELLENT POOR FAIR-GOOD EXCELLENT EXCELLENT OILS - PETROLEUM BASED EXCELLENT EXCELLENT GOOD EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD EXCELLENT FAIR POOR FAIR POOR GOOD FAIR POOR EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT GOOD EXCELLENT FAIR-POOR EXCELLENT GOOD EXCELLENT FAIR-POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD EXCELLENT E	WATER	GOOD	GOOD	EXCELLENT	GOOD	EXCELLENT	GOOD	GOOD	EXCELLENT
FUELS GOOD EXCELLENT FAIR EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD OILS - PETROLEUM BASED EXCELLENT EXCELLENT GOOD EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR GOOD EXCELLENT GOOD GOOD EXCELLENT KETONES - OXYGENATED POOR FAIR POOR POOR GOOD FAIR POOR EXCELLENT BRAKE FLUID NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR-GOOD GOOD EXCELLENT EXCELLENT EXCELLENT	RADIATION	FAIR	GOOD-FAIR	EXCELLENT	EXCELLENT	GOOD-FAIR	GOOD-FAIR	FAIR	GOOD
OILS - PETROLEUM BASED EXCELLENT EXCELLENT GOOD EXCELLENT POOR FAIR-GOOD EXCELLENT GOOD ACIDS GOOD GOOD FAIR GOOD EXCELLENT GOOD GOOD EXCELLENT KETONES - OXYGENATED POOR FAIR POOR POOR GOOD FAIR POOR EXCELLENT BRAKE FLUID NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR-GOOD GOOD EXCELLENT EXCELLENT EXCELLENT	TYPICAL FLUID RESISTANCE								
ACIDS GOOD GOOD FAIR GOOD EXCELLENT GOOD GOOD EXCELLEI KETONES-OXYGENATED POOR FAIR POOR POOR GOOD FAIR POOR EXCELLEI BRAKE FLUID NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR-GOOD GOOD GOOD EXCELLENT EXCELLENT EXCELLENT	FUELS	GOOD	EXCELLENT	FAIR	EXCELLENT	POOR	FAIR-GOOD	EXCELLENT	EXCELLENT
KETONES -OXYGENATED POOR FAIR POOR POOR GOOD FAIR POOR EXCELLEI BRAKE FLUID NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR-GOOD GOOD GOOD EXCELLENT EXCELLENT EXCELLENT	OILS - PETROLEUM BASED	EXCELLENT	EXCELLENT	GOOD	EXCELLENT	POOR	FAIR-GOOD	EXCELLENT	GOOD
BRAKE FLUID NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR-GOOD GOOD GOOD EXCELLENT EXCELLENT EXCELLENT	ACIDS	GOOD	GOOD	FAIR	GOOD	EXCELLENT	GOOD	GOOD	EXCELLENT
NON-PETROLEUM BASE POOR FAIR GOOD FAIR-POOR GOOD-EXCELLENT FAIR-POOR FAIR GOOD ALCOHOLS GOOD GOOD FAIR-GOOD GOOD GOOD EXCELLENT EXCELLENT EXCELLENT			FAIR	POOR	POOR	GOOD	FAIR	POOR	EXCELLENT
		5005	FAIR	GOOD	FAIR-POOR	GOOD-EXCELLENT	FAIR-POOR	FAIR	GOOD
Polymer Comparison chart for guideline purposes, testing recommended prior to use in application.	ALCOHOLS	GOOD	GOOD	FAIR-GOOD	GOOD	GOOD	EXCELLENT	EXCELLENT	EXCELLENT
	Polymer Comparison chart for g	uideline purpose	s, testing recomme	nded prior to use	in application.				