

Physical/Chemical Properties of Natural and Synthetic Rubbers



Fluid Seals & Packings Inc.

Properties	N.R	SBR	EPDM	Nitrile (NBR)	Neoprene (CR)	HYPALON (CSM)	SILICONE (VMQ)	FKM (VITON)	Hydrogenated NBR (HNBR)	FLUORO SILICONE (FVMQ)
TENSILE STRENGTH	E	G	G	G	G	G	P	G	G	F
TEAR RESISTANCE	E	G	G	F	F	G	P	G	G	P
COMPRESSION SET	G	G	G	G	F	G	G	G	G	G
ABRASION RESISTANCE	E	G	G	G	G	G	P	G	G	P
ACID RESISTANCE	G	F	G	F	G	G	F	E	E	G
ELECTRICAL PROPERTIES	G	G	G	F	F	F	E	F	F	E
FLAME RESISTANCE	P	P	P	P	G	P	F	E	P	G
GAS IMPERMEABILITY	F	F	G	F	G	P	P	G	G	P
REBOUND RESILIENCE	E	F	F	F	G	P	G	G	F	G
OZONE RESISTANCE	P	P	E	P	G	E	E	E	G	G
WEATHER RESISTANCE	F	G	E	F	E	E	E	E	G	E
WATER RESISTANCE	P	F	E	F	F	G	F	F	G	F
OIL RESISTANCE	P	P	P	E	F	G	P	E	E	G
OIL RESISTANCE (ASTM OIL)										
NO 1 @ 20°C	P	P	F	G	E	G	E	E	E	G
NO 1 @ 100°C	P	P	P	G	G	G	G	E	E	G
NO 3 @ 20°C	P	P	P	G	G	G	G	E	F	G
NO 3 @ 100°C	P	P	P	G	F	G	F	E	F	G
ASTM FUEL B 40°C	P	P	P	F	P	F	P	E	--	G
TEMPERATURE										
MAX EXT TEMP°C	105	115	150	130	125	160	300	250	180	200
MAX CONT TEMP°C	75	85	130	100	95	130	250	200	150	180
LOWEST TEMP°C	-60	-30	-40	-20	-40	-25	-60	-20	-28	-60

E = Excellent **G** = Good **F** = Fair **P** = Poor

