

INSULATION PROPERTIES OF MATERIALS										
		SILICONE	EPR	EPDM	NEOPRENE	PVC	HYPALON	HIGH DENSITY POLYETHELENE	LOW DENSITY POLYETHELENE	X-LINKED POLYOLEFIN
RESISTANCE TO:										
ABRASION		P-F	F-G	G	G-E	F-G	G	E	G	G
HEAT		E	G-E	E	G	G-E	E	E	G	E
WEATHER/SUN		E	E	E	G	G-E	E	E	E	F
FLAME		F-G	P	P	G	E	G-E	P	P	G
WATER		G-E	E	G-E	E	G	E	E	E	G
ACID		F-G	E	G-E	G	G-E	E	E	G-E	G
ALKALI		F-G	E	G-E	G	G-E	E	E	G-E	G
OXIDATION		E	E	E	G	E	E	E	E	G
OZONE		E	E	E	G	E	E	E	E	G
RADIATION		E	F	G	F-G	F	E	G-E	G-E	G
ALIPHATIC HYDROCARBONS		P-F	P-F	P	G	P-G	F	G-E	G-E	F-G
AROMATIC HYDROCARBONS		P-F	P-F	F	P-F	P-F	F	P	P	F-G
HALOGENATED HYDROCARBONS		P-G	P	P	P	P-F	P-F	G	G	F-G
ALCOHOL		G	E	P	F	G-E	G	E	E	F-G
	ASTM									
SPECIFIC GRAVITY	792-66	1.1-1.6	0.9	0.85	1.2-1.6	1.2-1.7	1.4-1.7	0.95	0.92	1.3
TENSILE STRENGTH psi	638-77	1000	3400	700-2400	1200-2700	1500-4500	1200-2200	3600	1700	1800
ELONGATION %	412-75	100-500	400	200-550	300-700	40-400	300-600	400	600	350
VOLUME RESISTIVITY ohm-cm	257-78	8.00E+13	1.00E+18	1.00E+17	1.00E+13	1.00E+15	1.00E+13	1.00E+17	1.00E+13	1.00E+15
TEMP.RANGE HI/LOW C°		150/-80	105/-40	105/-55	60/-20	80/-20	90/-20	80/-60	80/-60	125/-40
DIELECTRIC STRENGTH V/mil	149-75	100-700	600	500-800	600	250-500	500	500	550	550
DIELECTRIC CONSTANT 60/1kHz	150-78	3.0-3.5	2.3-3.3	2.5-3.5	5.0-7.0	3.2-9.0	9.0-11.0	2.3	2.3	2.3
Legend: E = Excellent G = Good F = Fair P = Poor										

HYDROCARBONS

Aliphatic - gasoline, kerosine, etc

Aromatic - benzol, tolul, etc

Halogenated - degreaser solvents

EPR - ethylene-propylene copolymer rubber

EPDM - ethylene-propylene diene monomer rubber

Hypalon - chlorosulfonated ployethylen

Polyethylene - insulations derived from the polymerization of ethylene gas