Insulations and Jackets

Table 5: Comparative Properties of **Plastic** Insulating and Jacketing Compounds

Properties	PVC	LDPE	Cellular Polyethy-lene	HDPE	Polypro-pylene	Cellular Polypro-pylene	PUR	Nylon	CPE	LSNH	FEP Teflon®
Oxidation Resistance	E	E	E	E	E	E	E	E	E	E	O
Heat Resistance	G-E	G	G	E	E	E	G	E	E	G-E	O
Oil Resistance	F	G-E	G	G-E	F	F	E	E	E	G	E
Low-temperature Flexibility	P-G	E	E	E	P	P	G	G	E	F-G	O
Weather, Sun Resistance	G-E	E	E	E	E	E	G	E	E	G	O
Ozone Resistance	E	E	E	E	E	E	E	E	E	E	E
Abrasion Resistance	F-G	G	F	E	F-G	F-G	O	E	E-O	F-G	E
Electrical Properties	F-G	E	E	E	E	E	P	P	E	G	E
Flame Resistance	E	P	P	P	P	P	P	P	E	E	E
Nuclear Radiation Resistance	F	G-E	G	G-E	F	F	G	F-G	O	F	P
Water Resistance	F-G	E	E	E	E	E	P-G	P-F	O	G	E
Acid Resistance	G-E	G-E	G-E	E	E	E	F	P-F	E	P-F	E
Alkali Resistance	G-E	G-E	G-E	E	E	E	F	E	E	G	E
Aliphatic Hydrocarbons Resistance (Gasoline, Kerosene, etc.)	P	G-E	G	G-E	P-F	P	P-G	G	E	F	E
Aromatic Hydrocarbons Resistance (Benzol, Toluol, etc.)	P-F	P	P	P	P-F	P	P-G	G	G-E	P-F	E
Halogenated Hydrocarbons Resistance (Degreaser Solvents)	P-F	G	G	G	P	P	P-G	G	E	P	E
Alcohol Resistance	P-F	E	E	E	E	E	P-G	P	E	G	E
Underground Burial	P-G	G	N/A	E	N/A	N/A	G	P	E-O	F	E

CPE = Chlorinated Polyethylene • HDPE = High-density Polyethylene • LDPE = Low-density Polyethylene • PUR = Polyurethane • LSNH = Low-smoke Non-halogen • FEP = Fluorinated Ethylene-Propylene • P = Poor • F = Fair • G = Good • E = Excellent • O = Outstanding

These ratings are based on average performance of general purpose compounds.
Any given property can usually be improved by the use of selective compounding.

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