

## Insulations and Jackets

Table 4: Comparative Properties of Plastic Insulating and Jacketing Compounds

Properties	PVC	LDPE	Cellular Polyethylene	HDPE	Polypropylene	Cellular Polypropylene	PUR	Nylon	CPE	Flamarrest®
<b>Oxidation Resistance</b>	E	E	E	E	E	E	E	E	E	E
<b>Heat Resistance</b>	G-E	G	G	E	E	E	G	E	E	G-E
<b>Oil Resistance</b>	F	G-E	G	G-E	F	F	E	E	E	F
<b>Low-Temperature Flexibility</b>	P-G	E	E	E	P	P	G	G	E	P-G
<b>Weather, Sun Resistance</b>	G-E	E	E	E	E	E	G	E	E	G
<b>Ozone Resistance</b>	E	E	E	E	E	E	E	E	E	E
<b>Abrasion Resistance</b>	F-G	G	F	E	F-G	F-G	O	E	E-O	F-G
<b>Electrical Properties</b>	F-G	E	E	E	E	E	P	P	E	G
<b>Flame Resistance</b>	E	P	P	P	P	P	P	P	E	E
<b>Nuclear Radiation Resistance</b>	F	G-E	G	G-E	F	F	G	F-G	O	F
<b>Water Resistance</b>	F-G	E	E	E	E	E	P-G	P-F	O	F
<b>Acid Resistance</b>	G-E	G-E	G-E	E	E	E	F	P-F	E	G
<b>Alkali Resistance</b>	G-E	G-E	G-E	E	E	E	F	E	E	G
<b>Aliphatic Hydrocarbons Resistance</b> (Gasoline, Kerosene, etc.)	P	G-E	G	G-E	P-F	P	P-G	G	E	P
<b>Aromatic Hydrocarbons Resistance</b> (Benzol, Toluol, etc.)	P-F	P	P	P	P-F	P	P-G	G	G-E	P-F
<b>Halogenated Hydrocarbons Resistance</b> (Degreaser Solvents)	P-F	G	G	G	P	P	P-G	G	E	P-F
<b>Alcohol Resistance</b>	P-F	E	E	E	E	E	P-G	P	E	G
<b>Underground Burial</b>	P-G	G	N/A	E	N/A	N/A	G	P	E-O	P

CPE = Chlorinated Polyethylene • HDPE = High-density Polyethylene • LDPE = Low-density Polyethylene • PUR = Polyurethane

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

### Legend

<b>P</b>	Poor
<b>F</b>	Fair
<b>G</b>	Good
<b>E</b>	Excellent
<b>O</b>	Outstanding