EMS Partners

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Comparative Properties of Plastic

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

P = POOR	**E** = EXCELLENT	**F** = FAIR
G = GOOD	**O** = OUTSTANDING	

	PVC	Low-Density Polyethylene	Cellular Polyethylene	High-Density Polyethylene	Polypropylene
Oxidation Resistance	E	E	E	E	E
Heat Resistance	G - E	E	G	E	E
Oil Resistance	F	G - E	G	G - E	F
Low Temperature Flexibility	P - G	E	E	E	P
Weather, Sun Resistance	G - E	E	E	E	E
Ozone Resistance	E	E	E	E	E
Abrasion Resistance	F - G	G	F	E	F - G
Electrical Properties	F - G	E	E	E	E
Flame Resistance	E	P	P	P	P
Nuclear Radiation Resistance	F	G - E	G	G - E	F
Water Resistance	F - G	E	E	E	E
Acid Resistance	G - E	G - E	G - E	E	E
Alkali Resistance	G - E	G - E	G - E	E	E
Gasoline, Kerosene, Etc. (Aliphatic Hydrocarbons) Resistance	P	G - E	G	G - E	P - F
Benzol, Toluol, Etc. (Aromatic Hydrocarbons) Resistanc ɜ	P - F	P	P	P	P - F
Degreaser Solvents (Halogenated Hydrocarbons) Resist ance	P - F	G	G	G	P
Alcohol Resistance	G - E	E	E	E	E
Underground Burial	P - G	G	N/A	E	N/A

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	Cellular Polypropylene	Polyurethane	Nylon	CPE
Oxidation Resistance	**E**	**E**	**E**	**E**
Heat Resistance	**E**	**G**	**E**	**E**
Oil Resistance	**F**	**E**	**E**	**E**
Low Temperature Flexibility	**P**	**G**	**G**	**E**
Weather, Sun Resistance	**E**	**G**	**E**	**E**
Ozone Resistance	**E**	**E**	**E**	**E**
Abrasion Resistance	**F - G**	**O**	**E**	**E - O**
Electrical Properties	**E**	**P**	**P**	**E**
Flame Resistance	**P**	**P**	**P**	**E**
Nuclear Radiation Resistance	**F**	**G**	**F - G**	**O**
Water Resistance	**E**	**P - G**	**P - F**	**O**
Acid Resistance	**E**	**F**	**P - F**	**E**
Alkali Resistance	**E**	**F**	**E**	**E**
Gasoline, Kerosene, Etc. (Aliphatic Hydrocarbons) Resistance	**P**	**P - G**	**G**	**E**
Benzol, Toluol, Etc. (Aromatic Hydrocarbons) Resistance	**P**	**P - G**	**G**	**G - E**
Degreaser Solvents (Halogenated Hydrocarbons) Resistance	**P**	**P - G**	**G**	**E**
Alcohol Resistance	**E**	**P - G**	**P**	**E**
Underground Burial				