

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	

	Low-Density	Cellular	High-Density	
	PVC	Polyethylene	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) Resistance	P - F	P	P	P	P - F
Degreaser Solvents (Halogenated Hydrocarbons) Resistance	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				