



Environmental Resistance Of Polyurethane

Because of the diversity of exposures to which elastomer parts may be subjected, it is advisable to run exposure tests in the actual solvent or other environmental media to determine durability of the material.

Environmental Resistance of Polyurethane, Elastomers and Some Conventional Rubbers.

Environment	Polyester Polyurethane Elastomers	Polyether Polyurethane Elastomers	Natural Rubber	Neoprene Rubber	Styrene Butadiene Rubber
Heat	G	F	F	G	G
Cold	G	G	E	G	G
Weather	E	E	P	G	F
Ozone Resistance	E	E	P	F	P
ASTM No. 1 Oil	E	F	P	G	P
ASTM No. 3 Oil	E	P	P	G	P
Aliphatic Solvents e.g., Heptane	E	F	P	G	P
Chlorinated Solvents e.g., Trichloroethane	F – G	P	G	P	P
Aromatic Solvents e.g., Toluene	F	P	P	F	P
Dilute Acids e.g., 5% HNO ₃	P – F	F	G	G	F – G
Dilute Alkalies e.g., 5% NaOH	P – F	F	G	G	F – G

E = excellent; G = good; F = fair; P = poor