

Chemical Resistance Comparison

This **Chemical Resistance Comparison** chart is based on theoretical information available in literature about the chemical resistance of individual elastomers. It is provided as a general guide for qualified professionals who recommend, select, specify or otherwise determine the suitability of products for worker safety. As such, the Chemical Resistance Comparison chart is advisory only and addresses the relative resistance of rubber, neoprene and PVC to degradation by the listed chemicals.

This chart does not address resistance to permeation. Permeation resistance of a particular elastomer cannot be inferred based on the chemical resistance information provided in this chart. The suitability of a product for a specific application must be determined and tested by the purchaser.

	Rubber	Neoprene	PVC	TPU		Rubber	Neoprene	PVC	TPU		Rubber	Neoprene	PVC	TPU
Acetaldehyde	F	F	P	E	Cyclohexanone	P	P	P	G	Methyl Ethyl Ketone	P	P	P	G
Acetic Acid	E	F	P	G	Diacetone Alcohol	G	G	P	G	Milk	E	P	E	E
Acetone	F	P	P	G	Dibenzyl Ether	P	P	P	F	Mineral Oil	P	E	E	E
Acrylonitrile	F	P	G	G	Dibutyl Phthalate	P	P	P	F	Monoethanolamine	G	G	G	P
Ammonia Anhydrous	E	E	P	G	Diethylphthalate	P	G	P	G	Morpholine	P	P	F	G
Ammonium Hydroxide	G	E	G	G	Diesel Fuel	P	G	F	E	Naphtha	P	P	F	G
Ammonium Sulphate	E	E	G	P	Diethanolamine	G	G	G	E	Nitric Acid	F	P	P	G
Amyl Acetate	F	P	P	E	Diisobutylene	P	P	P	F	Nitrobenzene	P	P	P	P
Amyl Alcohol (Fusel Oil)	E	E	E	G	Ethyl Acetate	P	P	P	F	Octyl Alcohol	G	G	P	G
Animal Fats	P	G	G	E	Ethyl Alcohol	E	E	G	E	Oleic Acid	P	F	G	G
Aniline	F	P	P	P	Ethylene Glycol	E	E	E	E	Olive Oil	P	G	F	E
Battery Acid	P	F	G	E	Ethyl Ether	P	P	P	E	Paint Remover	P	P	P	G
Benzaldehyde	F	P	P	E	Ethyl Formate	P	P	P	E	Perchloroethylene	P	P	P	G
Benzene (Benzol)	P	P	P	G	Ferric Chloride	E	E	E	P	Perchloric Acid	P	G	P	P
Benzol (Benzene)	P	P	P	G	Formaldehyde	G	G	G	G	Petroleum Oils	P	G	G	E
Benzyl Alcohol	P	G	E	F	Formic Acid	G	E	G	G	Petroleum Solvent	P	G	G	E
Benzyl Chloride	P	P	P	P	Furfural	P	G	F	G	Phosphoric Acid 20%	F	F	F	G
Butane	F	G	F	E	Fusel Oil (Amyl Alcohol)	E	E	E	G	Pine Oil	P	P	F	G
Butter	P	G	E	E	Gasoline (Cracked)	P	F	F	E	Potassium Dichromate	G	E	G	E
Buttermilk	P	E	G	E	Gasoline (SR)	P	G	F	E	Potassium Hydroxide	G	E	G	G
Butyraldehyde	P	F	P	G	Glycerine	E	E	E	E	Potassium Permanganate	E	E	G	G
Butyl Acetate	P	P	P	F	Grease (Petroleum Based)	P	F	E	E	Propane	P	G	E	G
Butyl Alcohol	E	E	G	E	Hexane	P	G	F	G	Propyl Acetate	P	P	P	F
Calcium Chloride	E	E	E	G	Hydraulic Fluids (Petroleum Base)	P	G	E	E	Propyl Alcohol	E	E	E	E
Calcium Hypochlorite	P	F	E	F	Hydraulic Fluids (Phosphate Ester)	P	P	P	P	Silicone Oil 220	G	E	G	E
Carbolic Acid	P	P	F	P	Hydraulic Fluids (Silicate Ester)	P	E	P	F	Skydrol #500	P	P	P	F
Carbon Disulfide	P	P	P	P	Hydraulic Fluids (Water Glycol)	G	F	P	G	Soaps	G	G	G	E
Carbon Tetrachloride	P	G	P	P	Hydrobromic Acid	E	F	E	G	Sodium Chloride	E	E	G	G
Carbonic Acid	E	E	E	E	Hydrochloric Acid	E	G	E	G	Sodium Hydroxide	E	E	E	G
Castor Oil	E	E	E	G	Hydrofluoric Acid	P	F	E	G	Stearic Acid	F	G	E	E
Caustic Potash	G	E	G	G	Hydrofluoric Acid (Hot)	P	P	G	F	Sulfuric Acid	F	F	G	E
Caustic Soda	E	E	E	G	Hydrogen Peroxide	F	P	G	G	Tannic Acid	E	E	E	G
Chlorine Water	F	F	F	G	Hydrogen Sulfide	F	E	E	F	Tide	P	G	G	G
Chloroacetone	F	F	P	G	Hylene (Toluene Diisocyanate)	P	P	P	E	Tin Chloride	G	G	G	P
Chloroform	P	P	P	P	Isopropyl Alcohol	E	E	E	E	Toluene	P	P	P	G
Chlorothene	P	P	P	F	Kerosene (Coal Tar)	P	F	G	G	Toluol	P	P	P	G
Chlorox	P	G	G	G	Kerosene (Pet.)	P	P	P	F	Trichlorethylene	P	P	P	P
Citric Acid	E	E	E	G	Lactic Acid	G	E	G	E	Tricresyl Phosphate	F	F	P	P
Coal Tar Solvents	P	P	G	G	Lard Oil	P	G	G	E	Triethanolamine	G	G	G	F
Coconut Oil	P	E	F	E	Linseed Oil	P	E	P	E	Trinitrotoluene (TNT)	P	G	G	F
Copper Chloride	G	G	E	G	Malic Acid	E	E	E	G	Tung Oil	P	E	F	E
Copper Sulphate	G	E	E	G	Methyl Acetate	P	F	P	G	Turpentine	P	G	G	G
Cottonseed Oil	P	E	G	E	Methyl Alcohol	E	E	G	E	Water	E	E	E	E
Cutting Oil	P	G	P	G	Methyl Cellosolve	P	G	E	G	Water 100C	E	E	E	E
Cyclohexane	P	P	P	G	Methyl Chloride	P	P	P	G	Xylol	P	P	P	F

With NSP Triple Density Technology®, it is possible to mold three compounds in one boot. Normally, two compounds are used to make the parts of the outsole both durable and slip resistant in specific organic or inorganic substances. The third compound is used to mold job-specific boot uppers for use in harsh environments such as slaughterhouses, agri-industrial fertilizers and chemicals, petrochemicals, dairy and poultry processing, commercial fishing and processing, breweries, and other specific applications. Note the recommended job applications for Triple Density Footwear throughout this catalog. In these applications, the footwear ratings will be even better than the ratings for ordinary PVC as shown in this Chemical Resistance Chart.