

Many new materials have been developed to handle the wide range of modern chemicals being used in industry today. Many of these materials are now being used in the construction of Tigerflex™ hose.

The Chemical Resistance Guides which appears on the following pages have been prepared to assist the user in the selection of the correct hose for the application.

These recommendations are based on laboratory and test reports which are, to the best of our knowledge, complete and accurate. However, the degree of chemical resistance of any given material depends upon many variables, including such factors as length of exposure, temperature, pressure, fluid velocity, and chemical concentration.

Therefore, no guarantee is expressed or implied by our publication of these Chemical Resistance Guides. If an element of doubt exists, we advise that a sample of the specific hose selected be obtained and tested under actual conditions.

Furthermore, listings in these Chemical Resistance Guides do not imply conformance to any U. S. Department of Agriculture (USDA), Food and Drug Administration (FDA) or any other federal, provincial or state laws which may be applicable when handling food products. For information on the conformance of any specific hose product with FDA, USDA, or 3-A Sanitary Standards, please refer to the notes accompanying the information and specifications for each hose featured in this catalog.

Petroleum based fluids can impact the performance of a flexible PVC hose, therefore, service life may vary depending on the operating conditions and the type of material being conveyed.

WARNING

The Chemical Resistance Guides shown on the following pages are intended for general guidance only. The information contained therein is based upon tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No warranty is expressed or implied, as specific application

parameters, such as temperature, pressure and chemical concentrations vary widely. Furthermore, use of these hoses for handling multiple chemical products, either singly or as a mixture, may introduce uncontrollable factors relating to chemical resistance.

Before using any hose, the user is responsible for determining the suitability of the hose for the intended application. Therefore, the user assumes all risk and responsibility for determining the suitability of any hose for handling any chemical or chemicals.

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

PVC AND POLYURETHANE

RATINGS KEY – PVC AND POLYURETHANE

E Excellent
 G Good
 L Limited
 U Unsatisfactory
 – No Data

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Acetaldehyde	U	U	U	U
Acetaldehyde 40%	—	—	—	—
Acetate Solvents-Crude	U	U	L	U
Acetate Solvents-Pure	U	U	L	U
Acetic Acid 0-10%	G	L	U	U
Acetic Acid 10-20%	G	L	U	U
Acetic Acid 20-30 Pct	G	L	U	U
Acetic Acid 30-60%	G	L	U	U
Acetic Acid 80%	L	L	U	U
Acetic Acid Vapors	G	G	U	U
Acetic Acid-Glacial	L	U	U	U
Acetic Anhydride	U	U	U	U
Acetone	U	U	L	U
Acetylene	E	E	E	E
Acrylonitrile	E	G	—	—
Adipic Acid	G	L	U	U
Alcohol (See Type)	—	—	—	—
Allyl Alcohol 96%	U	U	U	U
Allyl Chloride	L	L	U	U
Alum	E	E	E	E
Aluminum Acetate	G	L	—	—
Aluminum Chloride	E	E	L	L
Aluminum Fluoride	E	E	E	E
Aluminum Hydroxide	E	L	G	L
Aluminum Nitrate	E	E	E	E
Aluminum Oxalate	—	—	—	—
Aluminum Oxychloride	E	E	—	—
Aluminum Sulfate	E	E	E	E
Ammonia – Aqueous	L	U	L	U
Ammonia – Dry Gas	L	U	L	U
Ammonia-Liquid	U	U	L	U
Ammoniated Latex	E	L	—	—
Ammonium Bicarbonate	—	—	—	—
Ammonium Carbonate	E	E	E	E
Ammonium Chloride	E	E	G	L
Ammonium Fluoride 25%	U	U	L	U
Ammonium Hydrosulphide	—	—	—	—
Ammonium Hydroxide 28%	G	G	L	U
Ammonium Metaphosphate	E	E	G	G
Ammonium Nitrate	E	E	G	G
Ammonium Persulfate	E	E	G	G
Ammonium Phosphate (Ammoniacal)	—	—	—	—
Ammonium Phosphate-Neutral	E	E	G	G
Ammonium Sulfate	E	E	E	E
Ammonium Sulfide	E	E	E	E
Ammonium Thiocyanate	E	E	G	G
Amyl Acetate	U	U	U	U
Amyl Alcohol	L	U	U	U
Amyl Chloride	U	U	—	—
Aniline	L	U	U	U
Aniline Chlorohydrate	U	U	U	U
Aniline Hydrochloride	U	U	U	U
Aniline Sulphate	—	—	—	—

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Animal Oils	E	G	—	—
Anthraquinone	E	E	—	—
Anthraquinonesulfonic Acid	E	E	U	U
Antimony Pentaculcride	—	—	—	—
Antimony Trichloride	E	E	E	E
Apple (Sauce or Juice)	E	E	—	—
Aqua Regia	L	U	U	U
Aromatic Hydrocarbons	U	U	—	—
Arsenic Acid 80%	E	G	U	U
Arylsulfonic Acid	L	U	U	U
Asphalt	U	U	E	E
ASTM Fuel #1 Oil	G	L	E	E
ASTM Fuel #3 Oil	L	G	E	E
ASTM Fuel A	G	L	E	E
ASTM Fuel B	U	U	G	L
ASTM Fuel C	U	U	G	L
Baby Food	E	E	—	—
Barium Carbonate	E	E	E	E
Barium Chloride	E	E	E	E
Barium Hydroxide	E	E	G	L
Barium Sulfate	E	E	E	E
Barium Sulfide	E	E	E	E
Barley	E	U	—	—
Beer	E	E	—	—
Beet-Sugar Liquor	E	E	—	—
Benzaldehyde	U	U	U	U
Benzene	U	U	L	U
Benzene-Sulfonic Acid 10%	E	E	U	U
Benzoic Acid	G	L	U	U
Benzol	U	U	L	U
Benzyl Alcohol	—	—	—	—
Berries	E	E	—	—
Bismuth Carbonate	E	E	E	E
Black Liquor (Paper industry)	E	E	—	—
Bleach-12.5% Active CL	G	L	L	U
Borax	E	G	E	E
Bordeaux Mixture	E	E	—	—
Boric Acid	E	E	U	U
Boron Trifluoride	E	E	E	E
Brine	E	E	G	U
Bromic Acid	E	L	U	U
Bromine-Liquid	U	U	U	U
Bromine-Water	U	U	U	U
Brussel Sprouts	E	E	—	—
Butadiene	L	U	—	—
Butane	E	E	E	E
Butanediol	—	—	—	—
Butanol-Primary	U	U	L	U
Butanol-Secondary	U	U	L	U
Butter	G	L	—	—
Butyl Acetate	U	U	L	U
Butyl Alcohol	E	L	L	U
Butyl Cellosolve	U	U	—	—

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

PVC AND POLYURETHANE

E Excellent **G** Good **L** Limited **U** Unsatisfactory — No Data

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Butyl Phenol	L	U	—	—
Butylene	E	G	E	E
Butynedial (Erythritol)	U	U	U	U
Butyraldehyde	—	—	—	—
Butyric Acid 20%	L	U	L	U
Calcium Bisulfite	E	E	E	E
Calcium Carbonate	E	E	E	E
Calcium Chlorate	E	E	G	L
Calcium Chloride	E	E	L	U
Calcium Hydroxide	E	E	G	L
Calcium Hypochlorite	E	E	U	U
Calcium Nitrate	E	E	E	E
Calcium Phosphate	—	—	—	—
Calcium Sulfate	E	E	E	E
Camphor Oil	—	—	—	—
Cane Sugar Liquors	E	E	—	—
Carbon Bisulfide	U	U	—	—
Carbon Dioxide (Aqueous Solution)	E	E	E	E
Carbon Dioxide Gas (Wet)	E	E	E	E
Carbon Disulphide	U	U	—	—
Carbon Monoxide	E	E	E	E
Carbon Tetrachloride	U	U	L	U
Carbonic Acid	E	E	U	U
Carrots	E	E	—	—
Casein	E	G	E	E
Castor Oil	E	E	E	E
Catsup	E	G	—	—
Caustic Potash	E	E	L	U
Caustic Soda	L	L	L	U
Cellosolve	L	U	G	L
Cheese	E	G	—	—
Cherries	E	E	—	—
Chloracetic Acid	E	U	U	U
Chloral Hydrate	E	E	G	L
Chloric Acid 20%	E	E	U	U
Chlorinated Hydrocarbons	U	U	—	—
Chlorine Gas (Dry)	E	E	U	U
Chlorine Gas (Moist)	L	U	U	U
Chlorine Water 2%	L	U	L	U
Chlorine Water Saturated	—	—	—	—
Chlorobenzene	U	U	U	U
Chloroform	U	U	U	U
Chlorsulfonic Acid	L	U	U	U
Chocolate	G	L	—	—
Chrome Alum	E	E	E	E
Chromic Acid 10%	G	L	U	U
Chromic Acid 25%	G	L	U	U
Chromic Acid 30%	L	U	U	U
Chromic Acid 40%	L	U	U	U
Chromic Acid 50%	L	U	U	U
Chromic Acid Plating Solution	—	—	U	U
Cider	—	—	—	—
Citric Acid	E	E	U	U

RATINGS KEY – PVC AND POLYURETHANE

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Coal Tar	U	U	U	U
Coconut Oil	L	U	E	E
Cola Drinks	E	E	—	—
Copper Chloride	E	G	E	E
Copper Cyanide	E	E	—	—
Copper Fluoride 2%	E	E	E	E
Copper Nitrate	E	G	E	E
Copper Sulfate	E	G	E	E
Core Oils	E	E	E	E
Corn Oils	E	G	—	—
Cottonseed Oil	G	L	E	E
Creosote	U	U	—	—
Cresol	U	U	L	U
Cresylic Acid 50%	U	U	U	U
Crude Oil-Sour	E	E	E	E
Crude Oil-Sweet	E	E	E	E
Cyclohexane	L	U	—	—
Cyclohexanol	U	U	L	U
Cyclohexanone	U	U	U	U
Demineralized Water	E	E	G	U
Detergents, Synthetic	E	G	—	—
Developers, Photographic	E	E	—	—
Dextrin	E	E	E	E
Dextrose	E	G	E	E
Di-acetone Alcohol	—	—	—	—
Di-isodecyl Phthalate	U	U	—	—
Diazo Salts	E	E	—	—
Dibutyl Phthalate	U	U	—	—
Dichlorobenzene	U	U	—	—
Diesel Oils	L	U	—	—
Diethyl Ether	—	—	—	—
Diethyl Ether	L	U	—	—
Diethylene Glycol	E	E	—	—
Diglycolic Acid	E	G	—	—
Dimethylamine	U	U	U	U
Diocetyl Phthalate	U	U	—	—
Diotylphthalate	U	U	G	L
Disodium Phosphate	E	E	E	E
Distilled Water	E	E	G	U
Eggs (yolks or white)	E	E	—	—
Emulsifiers	E	E	—	—
Emulsions, Photographic	E	E	—	—
Ethers	U	U	G	L
Ethyl Acetate	U	U	L	U
Ethyl Acrylate	U	U	—	—
Ethyl Alcohol	G	L	—	—
Ethyl Alcohol 0-50%	G	L	G	L
Ethyl Alcohol 50-98%	L	U	L	U
Ethyl Butyrate	—	—	—	—
Ethyl Chloride	U	U	U	U
Ethyl Ether	U	U	G	L
Ethyl Formate	—	—	—	—
Ethylene Bromide	E	U	U	U

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Chemical Resistance Guides

PVC AND POLYURETHANE

RATINGS KEY – PVC AND POLYURETHANE

E Excellent **G** Good **L** Limited **U** Unsatisfactory — No Data

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Ethylene Dichloride	U	U	U	U
Ethylene Glycol	E	E	G	L
Ethylene Oxide	U	U	U	U
Fatty Acids	E	G	G	L
Ferric Chloride	E	E	G	L
Ferric Nitrate	E	E	E	E
Ferric Sulfate	E	E	E	E
Ferrous Ammonium Citrate	—	—	—	—
Ferrous Chloride	E	E	E	E
Ferrous Sulfate	E	E	E	E
Figs	E	E	—	—
Fish Solubles	E	E	E	G
Fixing Solution Photographic	E	G	—	—
Flour	E	U	—	—
Fluorine Gas-Dry	U	U	U	U
Fluorine Gas-Wet	U	U	U	U
Fluoroboric Acid	E	E	E	E
Fluorosilicic Acid	E	E	U	U
Fluorosilicic Acid 40%	—	—	—	—
Fluorosilicic Acid Concentrate	—	—	—	—
Food Products, such as Milk, Buttermilk, Molasses, Salad Oils, Fruit	E	E	—	—
Folic Acid	E	L	U	U
Formaldehyde 40% Aqueous	U	U	—	—
Formic Acid 10%	E	G	U	U
Formic Acid 100%	U	U	U	U
Formic Acid 25%	E	G	—	—
Formic Acid 3%	E	G	U	U
Formic Acid 50%	L	U	U	U
Freon-12	E	G	E	E
Fructose	E	E	E	E
Fruit Pulp and Juices	E	E	E	E
Fuel Oil	G	L	E	E
Furfural	U	U	U	U
Furfuryl Alcohol	E	L	—	—
Gallic Acid	E	E	—	—
Gas-Coke Oven	G	G	G	G
Gas-Manufactured	U	U	—	—
Gas-Natural (Dry)	E	E	E	E
Gas-Natural (Wet)	E	E	E	E
Gasoline	U	U	—	—
Gasoline – Refined	L	U	E	G
Gasoline – Sour	L	U	E	G
Gelatine	E	E	E	E
Gin	E	G	—	—
Ginger Ale	E	E	—	—
Glucose	E	E	E	E
Glycerine (Glycerol)	E	E	E	E
Glycol	E	E	G	G
Glycolic Acid 30%	E	E	U	U
Grade Sugar	—	—	—	—
Grape Juice	E	E	—	—
Grapefruit Juice	E	E	—	—

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Grease	E	L	—	—
Green Liquor (Paper industry)	E	E	—	—
Heptachlor	E	L	—	—
Heptane	L	U	E	—
Hexadecanol	—	—	—	—
Hexane	L	U	—	—
Hexanol, Tertiary	L	U	G	—
Honey	E	E	—	—
Hydrochloric Acid 10%	E	E	U	U
Hydrochloric Acid 48%	E	L	U	U
Hydrocyanic Acid 10%	—	—	—	—
Hydrofluoric Acid 10%	G	L	U	U
Hydrofluoric Acid 4%	G	G	U	U
Hydrofluoric Acid 48%	G	U	U	U
Hydrofluoric Acid 60%	G	U	U	U
Hydrofluoroboric Acid	E	E	—	—
Hydrofluorosilicic Acid	G	L	U	U
Hydrogen	E	G	E	E
Hydrogen Bromide (Dry)	—	—	—	—
Hydrogen Chloride (Dry) (Liquid)	—	—	E	E
Hydrogen Cyanide	E	E	U	U
Hydrogen Peroxide 3 –12%	E	G	—	—
Hydrogen Peroxide 30%	E	G	G	L
Hydrogen Peroxide 50%	E	L	L	U
Hydrogen Peroxide 90%	U	U	U	U
Hydrogen Phosphide	E	L	—	—
Hydrogen Sulfide – Aqueous Solution	E	E	—	—
Hydrogen Sulfide – Dry	E	E	—	—
Hydrombromic Acid 20%	E	G	U	U
Hydroquinone	E	E	E	E
Hydroxylamine Sulfate	E	E	—	—
Hypochlorous Acid	E	E	L	U
Inks	—	—	—	—
Iodine (In Alcohol)	U	U	U	U
Iso-octane	G	L	—	—
Isopropyl Acetate	U	U	—	—
Isopropyl Alcohol	E	G	—	—
Jelly	E	E	—	—
Jet Fuels JP 3,4,5	U	U	G	L
Kerosene	U	U	E	G
Ketones	U	U	—	—
Kraft Liquor (Paper industry)	E	E	—	—
Lacquer Thinners	L	U	G	—
Lactic Acid 28%	E	E	U	U
Lard (marginal)	G	L	—	—
Lard Oil	E	G	E	G
Lauric Acid	E	E	L	U
Lauryl Chloride	E	E	E	E
Lauryl Sulfate	E	E	—	—
Lead Acetate	E	E	E	E
Lead Arsenate	—	—	—	—
Lead Nitrate	—	—	—	—
Lead Tetra-ethyl	—	—	—	—

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

PVC AND POLYURETHANE

E Excellent **G** Good **L** Limited **U** Unsatisfactory — No Data

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Lemon Juice	E	G	—	—
Lime Sulfur	E	E	—	—
Linoleic Acid	E	E	L	U
Linseed Oil	E	E	E	E
Liquors (Chemical)	E	G	—	—
Lubricating Oils	U	U	E	E
Magnesium Carbonate	E	E	E	E
Magnesium Chloride	E	E	G	L
Magnesium Hydroxide	E	E	G	L
Magnesium Nitrate	E	E	E	E
Magnesium Sulfate	E	E	E	E
Maleic Acid 25% Aqueous	E	E	L	U
Maleic Acid 50%	—	—	—	—
Maleic Acid Concentrated	—	—	—	—
Malic Acid	E	E	L	U
Manganese Suphate	—	—	—	—
Mayonnaise	E	E	—	—
Mercuric Chloride	G	G	G	L
Mercuric Cyanide	G	G	—	—
Mercurous Nitrate	G	G	G	G
Mercury	G	G	—	—
Metallic Soaps	—	—	—	—
Methyl Acetate	U	U	—	—
Methyl Alcohol	L	U	L	U
Methyl Bromide	U	U	—	—
Methyl Chloride	U	U	U	U
Methyl Ethyl Ketone	U	U	L	U
Methyl Isobutyl Ketone	U	U	—	—
Methyl Sulfate	E	G	E	G
Methyl Sulfuric Acid	E	E	U	U
Methylated Spirit	—	—	—	—
Methylene Chloride	U	U	U	U
Milk	E	E	—	—
Mineral Oils	E	G	E	E
Mineral Spirits	—	—	—	—
Molasses	E	E	E	E
Monochlorobenzene	U	U	—	—
Naphtha	U	U	E	E
Napthalene	L	U	—	—
Nickel Acetate	E	E	E	E
Nickel Chloride	E	E	E	E
Nickel Nitrate	E	E	E	E
Nickel Sulphate	E	E	E	E
Nicotine	E	E	E	E
Nicotine Acid	E	G	L	U
Nitric Acid (Anhydrous)	U	U	U	U
Nitric Acid 10%	E	G	U	U
Nitric Acid 25%	G	L	U	U
Nitric Acid 35%	G	L	U	U
Nitric Acid 40%	G	L	U	U
Nitric Acid 50%	—	—	—	—
Nitric Acid 60%	G	U	U	U
Nitric Acid 68%	L	U	U	U

RATINGS KEY – PVC AND POLYURETHANE

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Nitric Acid 70%	U	U	—	—
Nitrobenzene	U	U	U	U
Nitrous Oxide	E	E	E	E
Oats	E	U	—	—
Octyl Alcohol	—	—	—	—
Oils and Fats	U	U	E	E
Oils, Petroleum	U	U	E	E
Oleic Acid	U	U	U	U
Oleum	U	U	U	U
Olives	E	E	—	—
Orange Juice	E	E	—	—
Oxalic Acid	E	E	U	U
Oxygen	E	E	E	E
Ozone	L	U	—	—
Palmitic Acid 10%	E	G	U	U
Palmitic Acid 70%	L	U	U	U
Paraffin	E	G	—	—
Peaches	E	E	—	—
Peanut Butter	E	G	—	—
Peas	E	E	—	—
Pentachlorophenol in Oil	G	L	—	—
Pentane	G	U	—	—
Peracetic Acid 40%	U	U	U	U
Perchloric Acid 10%	G	L	U	U
Perchloric Acid 70%	L	U	U	U
Perchlorethylene	U	U	—	—
Petrol	U	U	—	—
Petroleum Ether	L	L	—	—
Phenol	U	U	U	U
Phenylhydrazine	U	U	—	—
Phenylhydrazine Hydrochloride	L	U	—	—
Phosgene (Gas)	E	G	—	—
Phosgene (Liquid)	U	U	—	—
Phosphoric Acid — 0-25%	E	E	U	U
Phosphoric Acid — 25-50%	E	E	U	U
Phosphoric Acid — 50-90%	E	E	U	U
Phosphorus (Yellow)	G	L	—	—
Phosphorus Pentoxide	U	U	—	—
Phosphorus Trichloride	U	U	—	—
Photographic Chemicals	E	E	E	G
Photographic Developers	—	—	—	—
Photographic Emulsions	—	—	—	—
Photographic Fixers	—	—	—	—
Picric Acid	U	U	U	U
Pineapple Juice	E	E	—	—
Pitch	G	L	—	—
Plating Solutions	—	—	—	—
Brass	E	E	E	E
Cadmium	E	E	E	E
Chromium	G	G	G	G
Copper	E	E	E	E
Gold	E	E	E	E
Judium	E	E	E	E

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

PVC AND POLYURETHANE

RATINGS KEY – PVC AND POLYURETHANE

E Excellent **G** Good **L** Limited **U** Unsatisfactory – No Data

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Lead	E	E	E	E
Nickel	E	E	E	E
Rhodium	E	E	E	E
Silver	E	E	E	E
Tin	E	E	E	E
Zinc	E	G	E	E
Potassium Acid Sulfate	E	E	E	E
Potassium Antimonate	E	E	E	E
Potassium Bicarbonate	E	E	E	E
Potassium Bichromate	E	E	E	E
Potassium Bisulfite	E	E	E	E
Potassium Bisulphate	—	—	—	—
Potassium Borate 1%	E	E	E	E
Potassium Bromate 10%	E	E	E	E
Potassium Bromide	E	E	E	E
Potassium Carbonate	E	E	E	E
Potassium Chlorate	E	E	G	G
Potassium Chloride	E	E	E	G
Potassium Chromate 40%	E	E	G	G
Potassium Cuprocyanide	E	E	—	—
Potassium Cyanide	E	E	E	E
Potassium Dichromate 40%	E	E	G	G
Potassium Ferricyanide	E	E	E	E
Potassium Fluoride	E	E	E	G
Potassium Hydroxide 10%	E	E	L	U
Potassium Hydroxide 20%	E	E	U	U
Potassium Hydroxide 35%	E	E	U	U
Potassium Hydroxide Conc.	—	—	—	—
Potassium Hypochlorite	G	L	U	U
Potassium Nitrate	E	E	E	E
Potassium Perborate	E	E	E	E
Potassium Perchlorite	E	E	G	L
Potassium Permanganate 10%	G	G	G	L
Potassium Persulfate	E	E	E	E
Potassium Phosphate	—	—	—	—
Potassium Sulfate	E	E	E	E
Potassium Sulfide	E	E	E	E
Potassium Thiosulfate	E	E	E	E
Potatoes	E	E	—	—
Propane	E	E	E	E
Propargyl Alcohol	E	E	—	—
Propyl Alcohol	E	L	G	L
Propylene Dichloride	U	U	U	U
Propylene Glycol	U	U	U	U
Prune Juice	E	E	—	—
Raisins	E	E	—	—
Ritchfield "A" Weed Killer	E	L	—	—
Salicylic Acid	—	—	—	—
Salt Water	E	E	G	U
Selenic Acid	E	G	U	U
Shortening	G	L	—	—
Silicic Acid	E	E	U	U
Silicone Fluids	—	—	—	—

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Silver Cyanide	E	E	E	E
Silver Nitrate	E	E	E	E
Silver Plating Solutions	E	G	E	E
Soap Solution	E	E	G	U
Soda	E	E	—	—
Sodium Acetate	E	E	E	E
Sodium Acid Sulfate	E	E	E	E
Sodium Aluminate	—	—	—	—
Sodium Antimonate	E	E	E	E
Sodium Arsenite	E	E	E	E
Sodium Benzoate	E	G	E	E
Sodium Bicarbonate	E	E	E	E
Sodium Bisulfate	E	E	E	E
Sodium Bisulfite	E	E	E	E
Sodium Bromide	E	E	E	G
Sodium Carbonate (Soda Ash)	E	E	E	E
Sodium Chlorate	G	L	G	G
Sodium Chloride	E	E	E	G
Sodium Cyanide	E	E	E	E
Sodium Dichromate	E	G	E	G
Sodium Ferricyanide	E	E	E	E
Sodium Ferrocyanide	E	E	E	E
Sodium Fluoride	E	E	E	G
Sodium Hydroxide 10%	L	L	L	U
Sodium Hydroxide 35%	U	U	U	U
Sodium Hydroxide 50%	U	U	—	—
Sodium Hydroxide Saturated	E	E	U	U
Sodium Hypochlorite	E	E	U	U
Sodium Nitrate	E	E	E	E
Sodium Nitrite	E	E	E	E
Sodium Phosphate-Acid	G	G	U	U
Sodium Silicate	E	E	E	E
Sodium Sulfate	E	E	E	E
Sodium Sulfide	E	E	E	E
Sodium Sulfite	E	E	E	E
Sodium Thisulfate (Hypo)	E	E	E	G
Soya Beans	E	U	—	—
Soya Oil	E	G	—	—
Soybean Oil	E	E	—	—
Spinach	E	E	—	—
Squash	E	E	—	—
Stannic Chloride	E	E	E	G
Stannous Chloride	E	E	E	G
Starch	—	—	—	—
Stearic Acid	E	G	L	U
Stoddard Solvent	L	U	G	G
Styrene	U	U	—	—
Sucrose	—	—	—	—
Sugar (All Forms)	E	E	—	—
Sulfur	G	G	—	—
Sulfuric Acid 0-10%	E	G	L	U
Sulfuric Acid 10-40%	E	G	U	U
Sulfuric Acid 50-60%	E	G	U	U

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

PVC AND POLYURETHANE

RATINGS KEY – PVC AND POLYURETHANE

E Excellent **G** Good **L** Limited **U** Unsatisfactory

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Sulfuric Acid 70%	E	G	U	U
Sulfuric Acid 95%	U	U	U	U
Sulfuric Acid 95% to Fuming	L	L	U	U
Sulfurous Acid	G	L	U	U
Sulphur Dioxide Gas-Dry	E	E	—	—
Sulphur Dioxide Gas-Wet	U	U	—	—
Sulphur Dioxide-Liquid	L	U	—	—
Sulphur Trioxide	E	G	—	—
Sulphurous Acid 10%	—	—	—	—
Sulphurous Acid 30%	—	—	—	—
Tall Oil	U	U	—	—
Tallow	—	—	—	—
Tannic Acid	E	E	L	U
Tanning Extracts	—	—	—	—
Tanning Liquors	E	E	—	—
Tartaric Acid	E	G	L	U
Tea (Brewed)	E	E	—	—
Tetraethyl Lead	G	L	G	G
Tetrahydrofuran	U	U	U	U
Tetrahydronaphthalene	—	—	—	—
Thionyl Chloride	U	U	U	U
Tin Chloride	E	E	E	E
Titanium Tetrachloride	E	U	L	U
Titanium Trichloride	—	—	—	—
Toluol or Toluene	U	U	L	U
Tomato Juice	E	E	—	—
Tomato Puree & Paste	E	E	—	—
Tomatoes	E	E	—	—
Transformer Oil	—	—	—	—
Tributyl Phosphate	U	U	—	—
Trichlorobenzene	—	—	—	—
Trichloroethylene	U	U	L	U
Tricresyl Phosphate	U	U	U	U
Triethanolamine	L	U	—	—
Triethylamine	G	L	—	—
Trimethyl Propane	L	U	—	—
Trisodium Phosphate	E	E	E	E
Turpentine	L	U	E	G
Urea	E	G	E	E
Urine	E	E	E	E
Vanilla Extract	—	—	—	—
Varnish	U	U	E	G
Vegetable Oils	G	L	—	—
Vinegar	E	G	G	L
Vinyl Acetate	U	U	U	U
Vinyl Chloride	U	U	—	—
Vodka	E	G	—	—
Water-Acid Mine Water	E	E	G	U
Water-Distilled	E	E	G	U
Water-Fresh	E	E	G	U
Water-Salt	E	E	G	U
Wetting Agents	—	—	—	—
Whey	—	—	—	—

Chemical or Material Conveyed	PVC		Thermoplastic Polyurethane	
	68°F	104°F	68°F	104°F
Whiskey	E	G	—	—
White Gasoline	E	E	E	G
White Liquor (Paper industry)	E	E	—	—
Wines	E	G	—	—
Xylene or Xylol	U	U	G	L
Yeast	E	U	—	—
Yogurt	E	G	—	—
Zinc Chloride	E	E	E	E
Zinc Chromate	E	E	E	E
Zinc Cyanide	E	E	E	E
Zinc Nitrate	E	E	E	E
Zinc Sulfate	E	E	E	E
Mixtures of Acids:				
Nitric 15%, Hydrofluoric 4%	E	G	U	U
Sodium Dichromate 13%, Nitric Acid 16%, Water 71%	E	G	U	U

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

RATINGS KEY – EPDM

G Good **L** Limited **U** Unsatisfactory

Chemical or Material Conveyed	Temperatures	
	68°F	104°F
Soy Sauce	G	G
Stearic acid	L	L
Sulfur Dioxide	U	U
Sulfuric Acid	L	L
Sulfurous Acid - 30%	L	L
Tetrahydrofuran	L	L
Toluene	U	U
Transformer Oil	U	U
Water	G	G
Zinc Chloride	G	G

103

SBR

RATINGS KEY – SBR

G Good

L Limited

U Unsatisfactory

Temperature		Temperature		Temperature	
Material Handled	68°F	Material Handled	68°F	Material Handled	68°F
1,1-dichloroethylene	U	Ethylene Glycol	G	Sodium Hydroxide (Conc.)	G
1,2-dichloroethane	U	Fluorine	U	Soy Sauce	G
Acetic Acid (10%)	L	Formaldehyde (40%)	L	Stearic Acid	G
Acetone	L	Glycerol	G	Sulfuric Acid (10%)	U
Aluminum Acetate	L	Grape Sugar	G	Tetrahydrofuran	U
Aluminum Chloride	G	Hydrochloric Acid (10%)	L	Toluene	U
Aluminum Hydroxide	G	Hydrochloric Acid (20%)	L	Transformer Oil	U
Aluminum Sulfide	L	Hydrochloric Acid (Conc.)	L	Water	G
Ammonia (Gas)	G	Hydrogen	L	Zinc chloride	G
Ammonia (Liquid)	G	Hydrogen Chloride (Anhydride)	L		
Ammonium Acetate (Conc.)	G	Hydrogen Peroxide (3%)	U		
Ammonium Bicarbonate	G	Hydrogen Peroxide (30%)	U		
Ammonium Chloride	G	Hydrogen Peroxide (80% or more)	U		
Ammonium Hydroxide	U	Hydrogen Sulfide	U		
Ammonium Nitrate	G	Iodine	U		
Aniline	U	Iron Chloride	G		
Aniline Sulfate	U	Iron Sulfate	G		
Barium Chloride	G	Isopropyl Alcohol	L		
Barium Hydroxide	G	Magnesium Carbonate	G		
Beer	L	Magnesium Chloride	G		
Benzene	U	Magnesium Hydroxide	L		
Benzyl Alcohol	U	Magnesium Sulfate	L		
Bromine	U	Methyl Alcohol (100%)	G		
Butyl Alcohol	G	Methyl Alcohol (6%)	G		
Calcium Carbonate	G	Methyl Ethyl Ketone (MEK)	U		
Calcium Chloride (Conc.)	G	Mineral Oil	U		
Calcium Chloride (in 20% Mesh)	G	Monochlorobenzene	U		
Calcium Hypochlorite (15% Cl2)	U	Nitric Acid (5%)	U		
Calcium Hypochlorite (Conc.)	U	Nitric Acid (50%)	U		
Carbon Dioxide	U	Nitric Acid (70%)	U		
Carbon Monoxide	L	Nitric Acid (95%)	U		
Carbon Tetrachloride	U	Nitrous Acid (10%)	L		
Carbonic Acid	L	Oleic Acid	U		
Carbonic Acid Gas	G	Oxalic Acid	L		
Cetyl Alcohol	L	Ozone	U		
Chlorine (10% Gas)	U	Paraffin	U		
Chlorine (100% Gas)	U	Perchloroethylene	U		
Chlorine (Solution)	U	Phenol	U		
Chloroform	U	Phosphoric Acid (30%)	U		
Chromate (25%)	U	Potassium Bichromate	U		
Citric Acid	G	Potassium Bromide	G		
Copper Chloride	G	Potassium Chloride	G		
Copper Nitrate	G	Potassium Cyanide	G		
Copper Sulfate	L	Potassium Fluoride	G		
Creosote Oil	U	Potassium Hydroxide (10%)	L		
Dextrin	G	Potassium Hydroxide (Conc.)	L		
Dichlorobenzene	U	Potassium Permanganate	U		
Dichloromethane	U	Potassium Sulfate	G		
Diethyl Ether	U	Propylene Glycol	L		
Emulsifier	G	Sake	G		
Ether	L	Salt Water	G		
Ethyl Acetate	U	Sodium Bicarbonate	G		
Ethyl Alcohol (100%)	G	Sodium Chloride	G		
Ethyl Alcohol (6%)	G	Sodium Hydroxide (10%)	G		

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.