WARNING This chart indicates the suitability of various elastomers and plastics for use with fluids to be conveyed. It should be used only as a guide for the selection of valve materials. Many conditions can affect the material choices, including, but not limited to; pressure, temperature, chemical mix, material compounding and environment. The user through its own analysis and testing is solely responsible for making the final selection. Therefore, Valworx does not warrant (neither express or implied) that the information in this chart is accurate or complete or that any material is suitable for any specific purpose.

A - Satisfactory B - Fair (suitable for some conditions) X - Unsatisfactory - Insufficient Data

CHEMICAL	PVC 73°F (23°C)	PVC 140°F (60°C)	PP (Polypropylene)	EPDM	FKM Viton®
Acetaldehyde	X	X	B	B	X
Acetaldehyde, aq 40%	B	X	A	B	X
Acetic acid, vapor	A	A	-	A	A
Acetic acid, glacial	A	X	A	A	B
Acetic acid, 25%	A	A	B	A	X
Adipic acid	A	A	A	B	X
Alums	A	A	A	A	X
Aluminum fluoride	A	X	A	A	A
Ammonia, gas	A	A	A	A	X
Ammonia, liquid	X	X	A	A	X
Ammonium salts	A	A	A	A	X
Ammonium Dichromate	A	X	-	A	X
Ammonium fluoride, 10%	A	A	-	A	A
Ammonium fluoride, 25%	A	X	-	A	A
Antimony trichloride	A	A	A	X	A
Aqua regia	B	X	X	X	B
Arsenic acid, 80%	A	A	A	A	A
Barium salts	A	A	B	A	A
Barium nitrate	A	X	A	A	X
Beer	A	A	A	A	A
Beet sugar liquor	A	A	A	A	A
Benzaldehyde, 10%	A	X	B	A	X
Benzene sulfonic acid, 10%	A	A	X	X	A
Benzoic acid	A	A	A	X	A
Black liquor – paper	A	A	A	A	A
Bleach, 12% active chlorine	A	A	-	A	A
Bleach, 5% active chlorine	A	A	-	A	A
Borax	A	A	B	A	A
Boric acid	A	A	A	A	A
Brine	A	A	A	A	A
Bromic acid	A	A	X	A	X
Bromine, aq	A	A	X	B	A
Butadiene	A	A	B	X	A
Butane	A	A	A	X	A
Butyl stearate	A	X	-	X	A
Butylene, liquid	A	A	X	X	A
Butyric acid	A	X	B	B	B
Cadmium Cyanide	A	A	-	A	X
Calcium salts	A	A	A	A	A

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CHEMICAL	PVC 73°F (23°C)	PVC 140°F (60°C)	PP (Polypropylene)	EPDM	FKM Viton®
Calcium hypochlorite, 30%	A	A	B	A	A
Calcium hydroxide	A	A	A	A	A
Calcium Nitrate	A	A	A	A	A
Calcium Oxide	A	A	A	A	A
Calcium Sulfate	A	A	A	A	X
Camphor	A	X	-	X	A
Cane sugar liquors	A	A	A	A	A
Carbitol	A	X	-	B	B
Carbon dioxide	A	A	A	A	A
Carbon monoxide	A	A	A	A	A
Carbon tetrachloride	A	X	X	X	A
Carbonic Acid	A	A	A	A	A
Castor oil	A	A	A	B	A
Caustic potash, (potassium hydroxide), 50%	A	A	A	A	X
Caustic soda, (sodium hydroxide), < 40%	A	A	B	A	X
Cellosolve	A	X	A	B	X
Cellosolve acetate	A	X	-	A	X
Chloric acid, 20%	A	A	X	A	X
Chlorine, gas, dry	B	X	X	X	A
Chlorine, liquid	X	X	X	X	X
Chlorine water	A	A	B	B	A
Chromic acid, 10%, 30%	A	A	X	B	A
Chromic acid, 40%	A	B	X	B	A
Chromium potassium sulfate	A	X	-	B	A
Citric acid	A	A	A	A	A
Coconut oil	A	A	A	X	A
Coffee	A	A	A	A	A
Coke oven gas	A	A	A	X	A
Copper acetate	A	X	A	A	X
Copper salts, aq	A	A	A	A	A
Corn oil	A	A	A	X	A
Cottonseed oil	A	A	A	X	A
Cresylic acid, 50%	A	A	A	X	A
Crude oil, sour	A	A	A	X	A
Cupric Salts, aq	A	A	A	B	A
Detergents, aq	A	A	A	A	A
Dextrin	A	A	A	X	A
Dextrose	A	A	A	A	X
Dibutyl sebacate	A	X	-	B	B
Diesel fuels	A	A	A	X	A
Diglycolic acid	A	A	-	A	X
Ethylene glycol	A	A	A	A	A
Fatty acids	A	A	A	X	A
Ferric salts	A	A	A	A	A

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CHEMICAL	PVC 73°F (23°C)	PVC 140°F (60°C)	PP (Polypropylene)	EPDM	FKM Viton®
Fish Oil	A	A	-	X	A
Fluoboric acid	A	A	A	A	X
Fluosilicic acid, 50%	A	A	A	B	B
Formaldehyde	A	A	A	B	X
Formic acid	A	X	A	A	X
Freon - F11	A	A	A	X	B
Freon - F12	A	A	A	X	X
Freon - F113	A	A	X	X	B
Freon - F114	A	A	-	A	A
Gallic acid	A	A	A	B	A
Gelatin	A	A	A	A	A
Glucose	A	A	A	A	A
Glycerine (glycerol)	A	A	A	A	A
Glycolic acid	A	A	A	A	X
Glycols	A	A	A	A	A
Green liquor, paper	A	A	A	A	A
Heptane	A	A	B	X	A
Hexane	A	X	B	A	A
Hydraulic Oil (petroleum)	A	X	-	X	A
Hydrobromic acid, 20%	A	A	A	A	A
Hydrochloric acid	A	A	B	X	A
Hydrofluosilic acid	A	A	A	A	A
Hydrocyanic acid	A	A	A	A	A
Hydroquinone	A	A	A	B	B
Hypochlorous acid	A	A	A	B	A
Jet fuels, JP-4 and JP-5	B	B	A	X	A
Kerosene	A	A	A	X	A
Lactic acid, 25%	A	A	B	A	A
Lactic acid, 80%	A	X	B	X	A
Lard oil	A	A	A	B	A
Lauric acid	A	A	A	X	A
Lime sulfur	A	X	A	X	A
Linoleic acid	A	A	A	X	B
Linoleic oil	A	A	A	X	A
Linseed oil	A	A	A	X	A
Lubricating oils	A	A	A	X	A
Magnesium salts	A	A	A	A	A
Maleic acid	A	A	A	X	A
Malic acid	A	A	A	B	A
Manganese sulfate	A	A	A	A	X
Mercuric salts	A	A	-	A	X
Mercury	A	A	A	A	A
Milk	A	A	A	A	A
Mineral oil	A	A	A	X	A

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CHEMICAL	PVC 73°F (23°C)	PVC 140°F (60°C)	PP (Polypropylene)	EPDM	FKM Viton®
Monochloroacetic acid	A	A	B	A	X
Motor oil	A	A	B	X	A
Naphtha	A	A	A	X	A
Naphthalene	X	X	B	X	A
Nickel acetate	A	X	A	A	X
Nickel salts	A	A	A	A	A
Nicotine	A	A	-	X	A
Nitric acid, 0 to 40%	A	A	A	B	A
Nitric acid, 50%	A	B	B	B	A
Nitric acid, 70%	A	X	X	X	X
Nitric acid, 100%	X	X	X	X	X
Nitrous acid, 10%	A	A	A	A	X
Nitrous oxide, gas	A	X	A	A	A
Oleic acid	A	A	B	X	B
Olive oil	A	A	A	B	A
Oxalic acid	A	A	A	A	A
Ozone, gas	A	A	B	A	A
Palmitic acid, 10%	A	A	A	B	A
Palmitic acid, 70%	A	X	A	B	A
Paraffin	A	A	A	X	A
Pentane	B	B	X	X	A
Peracetic acid, 40%	A	X	X	A	X
Perchloric acid, 15%	A	X	A	A	A
Perchloric acid, 70%	A	X	A	A	A
Perchloroethylene	B	B	B	X	A
Phenol	A	X	A	X	A
Phosphoric acid	A	A	A	X	X
Phthalic acid	B	B	X	A	X
Plating solutions, metal	A	A	B	B	A
Potassium salts, aq	A	A	A	A	A
Potassium iodide	A	X	A	A	X
Potassium permanganate, 10%	A	A	A	A	X
Potassium permanganate, 25%	A	X	A	A	X
Propylene Glycol, 25%	A	A	A	A	X
Propylene Glycol, 25 - 50%	B	B	A	A	X
Propylene Glycol, 50% +	X	X	A	A	X
Salicylic acid	A	A	A	A	A
Selenic acid, aq.	A	A	-	A	X
Silicone oil	A	X	A	A	A
Silver salts	A	A	A	A	X
Soap Solutions	A	A	A	A	A
Sodium salts, aq	A	A	A	A	A
Sodium chlorite	X	X	A	A	X
Sodium chlorate	A	X	A	A	X

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CHEMICAL	PVC 73°F (23°C)	PVC 140°F (60°C)	PP (Polypropylene)	EPDM	FKM Viton®
Stannic chloride	A	A	A	A	A
Stannous chloride (15%)	A	A	A	A	A
Stearic acid	A	A	A	B	X
Stoddard solvent	X	X	B	X	A
Succinic acid	A	A	A	A	X
Sulfite liquors	A	A	A	A	X
Sulfur	A	A	X	A	A
Sulfur dioxide, dry	A	A	A	A	X
Sulfur dioxide, wet	A	X	A	A	X
Sulfur trioxide, gas, dry	A	A	B	B	A
Sulfuric acid, up to 80%	A	A	A	B	A
Sulfuric acid, 90 to 93%	A	X	B	X	A
Sulfuric acid, 94 to 100%	X	X	B	X	A
Sulfurous acid	A	A	A	B	A
Tannic acid (10%)	A	A	A	A	A
Tartaric acid	A	A	A	B	A
Terpineol	B	B	-	X	A
Tetrachloroethane	B	B	B	X	A
Tetraethyl lead	A	X	A	X	A
Tetralin	X	X	X	X	A
Titanium tetrachloride	B	X	X	X	A
Toluene	X	X	B	X	A
Transformer oil	A	A	A	X	A
Tributyl citrate	A	X	-	A	X
Trichloroacetic acid	A	A	B	B	X
Triethanolamine	A	X	B	B	X
Trisodium phosphate	A	A	A	A	X
Turpentine	A	A	B	X	A
Vegetable oils	A	A	A	X	A
Vinegar	A	A	A	B	X
Water, chlorine	A	A	-	B	A
Water, deionized	A	A	A	A	A
Water, distilled	A	A	A	A	A
Water, fresh	A	A	A	A	A
Water, potable	A	A	A	A	A
Water, salt	A	A	A	A	A
White liquor	A	A	A	A	A
Whiskey	A	A	A	A	A
Wines	A	A	A	A	A
Xylene	X	X	X	X	A
Zinc salts	A	A	A	A	A