

Chemical or solvent	Concentration	Resistance to chemical attack		Suggested fitting type		Specific gravity (SPG)	
		(%)	68°F	140°F	v=Viton	e=EPDM	Temperature 68°F
Acetone		S	S	-	e	1.5	1.5
Acrylic emulsions		NS	NS	-	-	NS	NS
Alcohols from coconut oil		S	S	v	-	1.5	1.5
Allyl alcohol	All	NS	NS	-	e	NS	NS
Aluminum chloride	Dilute	S	S	v	e	1.9	1.9
Aluminum fluoride	Concentrated	S	S	v	e	1.9	1.9
Aluminum hydroxide		S	S	v	-	1.5	1.5
Aluminum sulphate	Concentrated	S	S	v	-	1.9	NS
Ammonia	Concentrated	S	S	-	e	1.5	1.5
Ammonium carbonate		S	S	v	e	1.9	1.9
Ammonium chloride	Saturated	S	S	v	e	1.5	1.5
Ammonium fluoride/Copper fluoride/Cuprous fluoride	Up to 20 %	S	S	v	e	1.9	1.9
Ammonium hydroxide	diluted	S	S	v	e	1.9	1.9
Ammonium Metaphosphate	Saturated	S	S	v	e	1.9	1.9
Ammonium nitrate	Saturated	S	S	v	e	1.5	1.5
Ammonium sulphate	Saturated	S	S	v	e	1.9	1.9
Ammonium thiocyanate	Saturated	ND	ND	-	-	ND	ND
Amyl Acetate	100%	NS	NS	-	-	NS	NS
Amyl alcohol	100%	S	S	v	e	1.5	1.5
Amyl chloride	100%	ND	ND	-	-	ND	ND
Aniline	100%	S	NS	-	e	1.5	NS
Antimony chloride	All	NS	NS	-	-	NS	NS
Any metal bisulfates	Concentrated	S	S	-	-	1.9	1.9
Aqua regia		NS	NS	v	-	NS	NS
Arsenic Acid	100%	ND	ND	-	-	ND	ND
Baits		NS	NS	-	-	NS	NS
Barium carbonate	Saturated	S	S	v	e	1.9	1.9
Barium chloride	Saturated	S	S	v	e	1.9	1.9
Barium hydroxide	up to 35%	S	S	v	e	1.5	1.5
Barium sulphide	Saturated	S	S	v	e	1.9	1.9
Beer		S	ND	v	e	1.5	ND
Benzene		NS	NS	-	-	NS	NS
Benzoic Acid	All	ND	ND	-	-	ND	ND
Bismuth carbonate	Saturated	S	S	-	-	1.9	1.9
Black liquor		S	S	v	e	1.9	1.9
Bleach	10%	S	S	v	-	1.5	1.5
Bleaching agents		S	S	v	-	1.5	1.5
Borax	Saturated	ND	ND	v	e	ND	ND
Boric Acid	Concentrated	S	S	v	e	1.5	1.5
Bromic Acid		NS	NS	v	e	1.5	1.5
Butandiol	100%	ND	ND	-	-	ND	ND
Butyric Acid	All	ND	ND	-	-	ND	ND
Calcium bisulfate	All	S	S	-	-	1.9	1.9
Calcium carbonate	Saturated	S	S	v	e	1.9	1.9
Calcium chlorate	Saturated	S	S	-	e	1.9	1.9
Calcium hydroxide/slaked lime	Saturated	ND	ND	-	-	ND	ND
Calcium hypochlorite/Calcium	Concentrated	S	S	v	e	1.9	1.9
Calcium nitrate	50%	S	S	v	e	1.5	1.5
Calcium sulfate		S	S	v	e	1.9	1.9
Camphor Oil		ND	ND	-	-	ND	ND
Carbon dioxide	Saturated solution	S	S	v	e	1.5	1.5
Carbon dioxide	Aqueous solution	S	S	v	e	1.5	1.5
Carbon disulfide		ND	ND	v	e	ND	ND
Carbon tetrachloride		NS	NS	-	-	NS	NS
Carbonic Acid	Concentrated	S	S	-	-	1.5	1.5
Castor Oil		ND	ND	-	-	NS	NS
Chl goldform	100%	NS	NS	-	-	NS	NS
Chloric ethylene	100%	NS	NS	-	-	NS	NS
Chlorine	Liquid	NS	NS	-	-	NS	NS
Chlorine Benzene	Any	NS	NS	-	-	NS	NS
Chloro sulfonic Acid	Any	NS	NS	-	-	NS	NS
ChlUrineted water	2%	NS	NS	v	-	1.5	1.5
ChlUrineted water	2%	NS	NS	v	-	1.5	1.5
Chrome bisulfate	Saturated	S	S	-	-	1.9	1.9
Chromic Acid	Any	NS	NS	-	-	NS	NS
Cider		S	S	v	-	1.5	1.5
Citric Acid	Saturated	S	S	v	e	1.5	1.5
Combustible Oil		NS	NS	-	-	NS	NS
Common vinegar	Common	S	S	v	e	1.5	1.5
Concentrated glue		ND	ND	-	-	ND	ND
Copper chloride	Saturated	S	S	v	e	1.9	1.9
Copper nitrate	Saturated	S	S	v	-	1.5	1.5
Copper sulfate/Cuprous Sulfate	diluted	S	S	v	e	1.9	1.9
Cottonseed Oil		S	S	v	-	1.5	1.5
Cresol/Hydroxytoluene	100%	NS	NS	-	-	NS	NS
Cuprous chloride	Saturated	S	S	v	e	1.9	1.9
Cyclohexane		NS	NS	-	-	NS	NS
Cyclohexanena		NS	NS	-	-	NS	NS
Dextrin	Saturated	S	S	-	-	1.5	1.5
Dextrose	Saturated	S	S	v	-	1.9	1.9
Diazo salts		ND	ND	-	-	ND	ND
Dibutyl phthalate (DBP)		NS	NS	-	-	NS	NS
Dichlgoldethylene(DCE)	Any	NS	NS	-	-	NS	NS
Dichlgoldpropylene	100%	NS	NS	-	-	NS	NS
Dietilen glycol	100%	NS	NS	-	-	NS	NS
Dietilen glycol	Diluted	S	S	v	e	1.5	1.5
Dimethylamine	Any	NS	NS	-	-	NS	NS
Diocetyl phthalate		NS	NS	-	-	NS	NS
DiPotassium chromate	40%	S	S	v	e	1.9	1.9
Ethyl Acetate	100%	NS	NS	-	-	NS	NS

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		(%)	68°F	140°F	v=Viton	e=EPDM	Temperature 68°F
Ethyl alcohol/Ethanol	Any	S	S	v	e	1.5	1.5
Ethyl chloride	Any	NS	NS	-	-	NS	NS
Ethyl ether		NS	NS	-	-	NS	NS
Etilen Glycol	Saturated	S	S	v	e	1.5	1.5
Ferric chloride	Saturated	S	S	v	e	1.9	1.9
FerroPotassium cyanide	40%	ND	ND	-	-	ND	ND
FerroSodium cyanide	Saturated	S	S	v	e	1.5	1.5
Ferrous chloride	Saturated	S	S	v	e	1.9	1.9
Ferrous sulphate		S	S	v	e	1.9	1.9
Flaxseed Oil		NS	NS	-	-	NS	NS
Fluorine		NS	NS	-	-	NS	NS
Formaldehyde	40%	S	S	v	e	1.5	1.5
Formic Acid	100%	S	S	-	e	1.9	1.9
Fruit pulp		S	S	v	-	1.5	1.5
Fruitful	Saturated	S	S	v	e	1.9	1.9
Fuming sulfuric acid		NS	NS	-	-	NS	NS
Furfural	Saturated	S	S	v	-	1.9	1.9
Gin	100%	NS	NS	-	-	NS	NS
Glucose		NS	NS	-	-	NS	NS
Glycerin/Glycerol		ND	ND	-	-	ND	ND
Glycol		S	S	v	e	1.5	1.5
Glycolic acid	30%	S	S	v	e	1.9	1.9
Glyphosate		S	S	v	-	1.9	1.9
Grape sugar	Saturated	S	S	v	e	1.5	1.5
Heptane		S	S	v	e	1.5	1.5
Hydrobromic Acid	50%	S	S	v	e	1.9	1.9
Hydrochloric acid	up to 75%	S	S	v	-	1.9	1.9
Hydrofluoric acid	up to Saturated	S	S	-	-	1.5	1.5
Hydrogen peroxide	30%	S	S	v	e	1.9	1.9
Hydrogen peroxide	90%	S	NS	v	-	1.5	NS
Hydroquinone/Benzene-1	100%	NS	NS	-	-	NS	NS
Inks		S	S	-	e	1.5	1.5
Iodine solutions	Any	NS	NS	-	-	NS	NS
Iron nitrate/ferric nitrate	Saturated	S	S	v	e	1.9	1.9
Lactic acid	10 - 90%	S	S	v	e	1.5	1.5
Latex		ND	ND	-	-	ND	ND
Lead Acetate	Saturated	S	S	-	e	1.9	1.9
Liquid bromine	100%	NS	NS	-	-	NS	NS
Lubricating Oils		NS	NS	-	-	NS	NS
Magnesium carbonate	Saturated	S	S	v	e	1.9	1.9
Magnesium hydroxide	Saturated	S	S	v	e	1.5	1.5
Magnesium nitrate	Saturated	S	S	v	e	1.9	1.9
Magnesium sulphate	Saturated	S	S	v	e	1.9	1.9
Maleic acid		ND	ND	-	-	ND	ND
Malic acid	Saturated	S	S	v	-	1.9	1.9
Mercurous nitrate/ Mercury(I) nitrate	Saturated	ND	ND	-	-	ND	ND
Methyl alcohol/Methanol	Any	S	S	-	e	1.5	1.5
Methyl bromide/Bromomethane		NS	NS	-	-	NS	NS
Methyl chloride		NS	NS	-	-	NS	NS
Methyl ethyl ketone/Butane	100%	NS	NS	-	-	NS	NS
Methylene chloride	100%	NS	NS	-	-	NS	NS
Milk		S	S	v	e	1.5	1.5
Mineral Oils		S	NS	v	-	1.5	NS
Naphtha	100%	NS	NS	-	-	NS	NS
Naphthalene		NS	NS	-	-	NS	NS
Nickel chloride	Saturated	S	S	v	e	1.9	1.9
Nickel nitrate	Concentrated	S	S	v	e	1.5	1.5
Nickel sulphate	Saturated	S	S	v	e	1.9	1.9
Nitric acid	Up to 30%	S	S	v	-	1.5	1.5
Nitrobenzene	100%	NS	NS	-	-	NS	NS
Oils and Fatty Acids		NS	NS	-	-	1.5	1.5
Orange extract		S	S	v	e	1.5	1.5
Oxalic acid	Saturated	S	S	v	e	1.9	1.9
Oxychloride	Sun bleaching	S	S	v	e	1.5	1.5
Perborate-potassium	Saturated	S	S	-	-	1.9	1.9
Perchloric acid	10%	ND	ND	-	-	ND	ND
PerPotassium chlorate	10%	S	S	-	e	1.9	1.9
Petroleum ether		NS	NS	-	-	NS	NS
Phenol/carbolic acid	Concentrated	NS	NS	-	-	NS	NS
Phosphoric Acid	Up to 30%	S	S	v	e	1.9	1.9
Phosphorus Pentoxide		ND	ND	-	-	ND	ND
Photographic solutions		S	S	v	e	1.5	1.5
Picric acid	Any	NS	NS	-	-	NS	NS
Potassium bicarbonate	Saturated	S	S	v	e	1.9	1.9
Potassium borate	1%	S	S	-	e	1.9	1.9
Potassium bromate	100%	S	S	v	e	1.9	1.9
Potassium bromide	Saturated	S	S	v	e	1.9	1.9
Potassium carbonate		S	S	v	e	1.9	1.9
Potassium chlorate	Saturated	S	S	v	e	1.9	1.9
Potassium chloride	Saturated	S	S	v	e	1.9	1.9
Potassium chromate	40%	S	S	v	e	1.5	1.5
Potassium cyanide	Saturated	S	S	v	e	1.9	1.9
Potassium fluoride	2%	S	S	v	e	1.9	1.9
Potassium hydroxide	Saturated	S	S	v	e	1.9	1.9
Potassium nitrate	Saturated	S	S	v	e	1.9	1.9
Potassium permanganate		NS	NS	-	-	NS	NS
Potassium sulfite	Concentrated	S	S	v	e	1.9	1.9
Potassium sulphate	Concentrated	S	S	v	e	1.9	1.9
Potassium sulphide	Concentrated	S	S	v	e	1.9	1.9
Potassium thiosulfate		S	S	v	e	1.5	1.5

Resistance Guide

Chemical or solvent	Concentration	Resistance to chemical attack		Suggested fitting type		Specific gravity (SPG)	
	(%)	68°F	140°F	v=Viton	e=EPDM	Temperature 68°F	Temperature 140°F
Propargyl alcohol		S	S	v	e	1.5	1.5
Propilen Glycol	50%	S	S	v	-	1.5	1.5
Propyl alcohol		S	S	v	e	1.5	1.5
PSodium benzoate	35%	S	S	v	e	1.5	1.5
Sea water		S	S	v	e	1.5	1.5
Silver nitrate solution		S	S	v	e	1.9	1.9
SOAP solution	Concentrated	S	S	v	e	1.5	1.5
Sodium Acetate	Saturated	S	S	-	e	1.5	1.5
Sodium bicarbonate	Saturated	S	S	v	e	1.9	1.9
Sodium bisulfite	Saturated	S	S	v	e	1.9	1.9
Sodium Bisulphate	Saturated	S	S	v	e	1.9	1.9
Sodium borate		S	S	v	e	1.9	1.9
Sodium carbonate	Concentrated	S	S	v	e	1.9	1.9
Sodium chlorate	Saturated	S	S	v	e	1.9	1.9
Sodium chloride	Saturated	S	S	v	e	1.5	1.5
Sodium cyanide		ND	ND	v	e	ND	ND
Sodium dichromate	Saturated	S	S	v	e	1.9	1.9
Sodium fluoride	80%	S	S	v	-	1.9	1.9
Sodium hydroxide/ caustic soda	20%	S	S	v	e	1.9	1.9
Sodium hypochlorite		S	S	v	e	1.9	1.9
Sodium nitrate		S	S	v	e	1.9	1.9
Solutions for metal plating	Bronze	S	ND	v	-	1.9	ND
Solutions for metal plating	Copper	S	ND	v	-	1.9	ND
Solutions for metal plating	Tin	S	ND	v	-	1.9	ND
Solutions for metal plating	Indium	S	ND	-	-	1.9	ND
Solutions for metal plating	Nickel	S	ND	v	-	1.9	ND
Solutions for metal plating	Gold	S	ND	v	e	1.9	ND
Solutions for metal plating	Silver	S	ND	v	-	1.9	ND
Solutions for metal plating	Lead	S	ND	v	-	1.9	ND
Solutions for metal plating	Rhodium	S	ND	v	e	1.9	ND
Solutions for metal plating	Zinc	S	ND	v	-	1.9	ND
Stannous chloride	Saturated	S	S	v	-	1.9	1.9
Starch solution	Saturated	S	S	v	e	1.5	1.5
Stearic Acid	100%	S	S	v	e	1.5	1.5
Sulfuric acid	Up to 99%	S	S	v	e	1.9	1.9
Sulfurous acid		S	S	v	e	1.9	1.9
Sulphur dioxide		ND	ND	-	-	ND	ND
Sulphur trioxide		ND	ND	-	-	ND	ND
Sulphur/Sulfur	Colloidal	NS	NS	-	-	NS	NS
Synthetic detergents		S	S	v	e	1.5	1.5
Tannic acid	10%	S	S	v	e	1.9	1.9
Tartaric acid	10%	ND	ND	-	-	ND	ND
Tetraethyl lead		ND	ND	-	-	ND	ND
Tetrahydrofuran-THF	100%	NS	NS	-	-	NS	NS
Toluene/methylbenzene		NS	NS	-	-	NS	NS
Transformer Oil		NS	NS	-	-	NS	NS
Trichloroacetic acid		ND	ND	-	-	ND	ND
Trichloroethylene		NS	NS	-	-	NS	NS
Triethanolamine	100%	NS	NS	-	-	NS	NS
Trisodium phosphate(TSP)	Saturated	S	S	v	-	1.9	1.9
Turpetine		NS	NS	v	-	NS	NS
UAN		S	NS	-	-	1.5	1.5
Urea	Up to 30%	S	NS	-	-	1.5	1.5
Urine		S	S	v	e	1.5	1.5
Vanilla		S	S	v	e	1.5	1.5
Whisky		S	S	v	e	1.5	NS
Wines		S	S	v	e	1.5	1.5
Xylene		NS	NS	v	e	NS	NS
Yeast		S	S	v	e	1.5	1.5
Zinc chloride	Saturated	S	S	v	e	1.9	1.9
Zinc sulfate	Saturated	S	S	v	e	1.9	1.9

Nomenclature

S = Satisfactory, it is suggested to use HDPE for this application

NS = Not satisfactory, it is not suggested to use HDPE for this application

ND = No data available