

Chemical Guides

Composite Hose and Metals



Chemical Guides Introduction

The Chemical Guides in this section are offered as a general indication of the compatibility of the various compounds incorporated in Parker hose with the chemicals, fluids and media listed. The basis for the ratings includes actual service experience, the advice of various polymer suppliers, and the considered opinion of our chemists. When in doubt, a sample of the compound should always be tested with the particular chemical and temperature it is to handle.

Some of the variables that affect the resistance of a compound to a chemical attack are:

- 1. Temperature of the Media Transmitted:** Higher temperatures increase the affect of chemicals on compounds. The amount of increase depends upon the polymer and the chemical. A compound quite suitable at room temperature might fail very quickly at higher temperatures. Working pressures in this catalog are recommended in accordance with ARPM design safety factors at ambient temperatures. Do not operate outside hose temperature limits. Even within hose temperature limits, end fittings and hose size can affect performance at higher temperatures.
- 2. Service Conditions:** A rubber compound usually swells when exposed to a chemical. Within a given percent of swell, a hose tube may function satisfactorily if the hose is in a static condition, but may fail quickly if the hose is subject to flexing.
- 3. The Grade or Blend of the Rubber Compound:** Basic polymers are sometimes mixed or blended to enhance a particular property for a specific service. As an example, the nitrile used as the tube material for Parker aircraft fueling hose varies in its makeup from the nitrile used in the tube of Day-Flo® Special Purpose hose. Consequently, the reaction to a particular chemical may therefore be somewhat different. When in doubt, a sample of the compound should always be tested with the particular chemical it is going to handle.

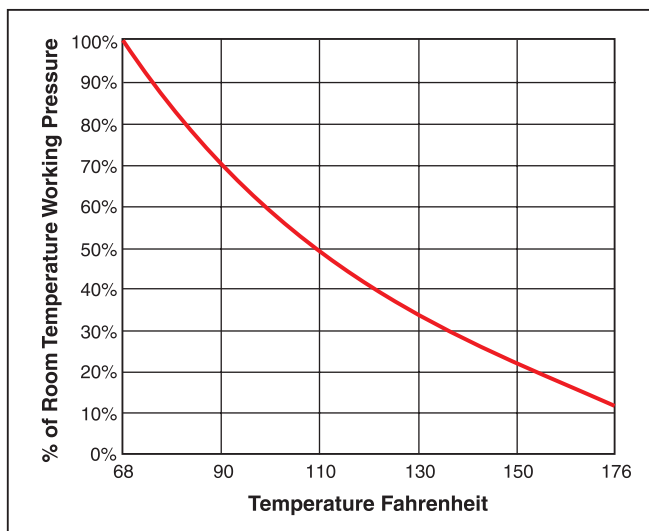
Names and General Properties of Parker Hose Materials

Common Name	ASTM Designation D1418-64	Composition	General Properties	Primary Hose Elements
Butyl / Chlorobutyl	IIR	Isobutene-Isoprene	Very good weathering resistance, low permeability to air. Good physical properties. Poor resistance to petroleum based fluids.	Tube / Cover
Chlorinated Polyethylene (CPE)	CM	Chloropolyethylene	Good long term resistance to UV and weathering. Good oil and chemical resistance. Excellent flame resistance. Good low temperature impact resistance.	Tube
Cross Linked Polyethylene (XLPE)	XPE	Cross Linked Polyethylene	Excellent resistance to most solvents, oils and chemicals. Do not confuse with chemical properties of standard polyethylene.	Tube
EPDM	EPDM	Ethylene Propylene Diene	Good general purpose polymer. Excellent heat ozone, and weather resistance. Not oil resistant.	Tube / Cover
Epichlorohydrin	ECO	Ethylene Oxide Chloromethyl	Excellent oil and ozone resistance. Fair flame resistance and low permeability to gases. Good low temperature properties.	Tube / Cover
Ethyl Vinyl Acetate (EVA)		Ethylene Vinyl Acetate	Good abrasion and chemical resistance. Lightweight.	Tube / Cover
Hypalon®	CSM	Chlorosulfonated Polyethylene	Excellent ozone, weathering and acid resistance. Good abrasion and heat resistance. Can be compounded for good oil resistance.	Tube / Cover
Modified XLPE (MXLPE)		Proprietary	Excellent chemical resistance with good heat properties.	Tube
Natural Rubber	NR	Isoprene	Excellent physical properties, including abrasion resistance. Not oil resistant.	Tube
Neoprene	CR	Chloroprene	Excellent weathering resistance. Good oil resistance. Good physical properties.	Tube / Cover
Nitrile / Buna-N	NBR	Nitrile-Butadiene	Excellent oil resistance. Good physical properties.	Tube / Cover
Nylon		Nylon	Excellent chemical resistance. Good temperature resistance.	Tube
Poly Vinyl Chloride (PVC)		Poly Vinyl Chloride	Good abrasion, chemical and weathering resistance. Lightweight. Poor oil and temperature resistance.	Tube / Cover, Tubing
Poly Vinyl Chloride / Polyurethane (PVC/PU)		Poly Vinyl Chloride / Polyurethane Blend	Good abrasion, chemical and weathering resistance.	Tube / Cover
Polyurethane (PU)	AU	Polyurethane	Good abrasion, chemical and weathering resistance.	Tube / Cover
SBR	SBR	Styrene-Butadiene	Good physical properties, including abrasion resistance. Not oil resistant. Poor weathering and ozone resistance.	Tube / Cover
Santoprene® (TPV)		Thermoplastic Vulcanizate	Excellent chemical and ozone resistance. Good flexibility. Lightweight.	Tube, Tubing
Teflon®	FEP / PTFE	Fluorinated Ethylene Propylene / Polytetra-Fluoroethylene	Excellent chemical, solvent, and heat resistance, inert to most materials. Smooth anti-adhesive surface – easily cleaned.	Tube
Ultra-High Molecular Weight Polyethylene (UNMWPE)	UHMW	Ultra-High Molecular Weight Polyethylene	Excellent chemical and heat resistance.	Tube
Viton®	FKM	Fluorocarbon Rubber	Excellent high temperature resistance, particularly in air or oil. Very good chemical resistance.	Tube / Cover

PVC and Thermoplastic Temperature / Pressure Chart

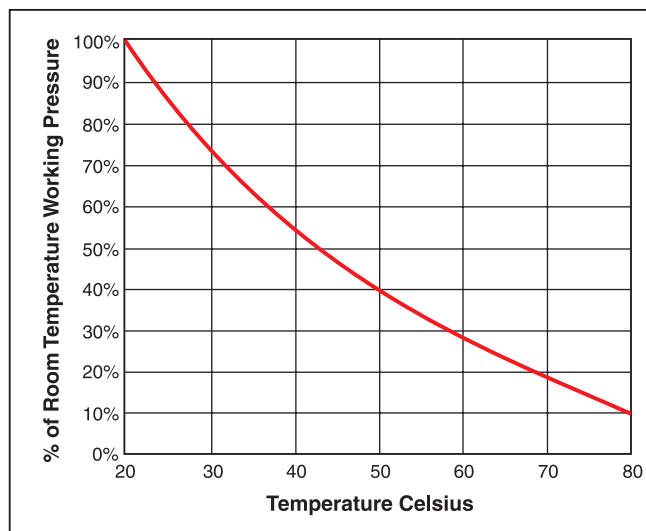
Effects of Elevated Temperatures on PVC / Thermoplastic Hose and Tubing

Thermoplastic hose and tubing achieve their optimum physical properties at room temperature, 68°F (20°C). As thermoplastic materials are exposed to increased ambient temperatures, they soften and their physical properties change. For hose and tubing, heat sharply reduces the available working pressure and coupling retention. The charts below illustrate this effect. In all cases, test the product in a controlled, secure and safe environment, and consider all operating conditions prior to use.



Example from the Fahrenheit Chart

If Working Pressure at 68°F is 200 PSI, then the WP at 110°F is 200 x 50%, or 100 PSI.



Example from the Celsius Chart

If Working Pressure at 20°C is 14 bar, then the WP at 50°C is 14 x 40%, or 5.6 bar.

Composite Hose and Chemical Table

⚠ WARNING! The following data is based on tests and believed to be reliable; however, the tabulation should be used as a guide **ONLY**, since it does not take into consideration all variables, such as elevated temperatures, fluid contamination, concentration, etc., that may be encountered in actual use. All critical applications should be tested. [Refer to the Safety & Technical Information section](#) of this catalog for safety, handling and use information.

Key: **A** = Suitable for use @ 140°F
B = Suitable for use @ AMBIENT temperatures
C = Suitable for INTERMITTENT service only
F = Unsuitable – NOT RECOMMENDED
• = No data (contact Parker)

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material		Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications)	Viton® (Chemical Applications)		w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications)	Viton® (Chemical Applications)
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)				G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
1,3-Pentadiene	C	C	C	A	C	A	•	•	Amyl Alcohol	B	B	B	A	B	A	A	A
2-Ethylhexylamine	C	B	B	A	C	A	•	•	Amyl Chloride	C	C	C	B	C	B	F	A
2-Ethyl-3-Propylacrolein	C	C	C	A	C	A	•	•	Aniline	F	C	C	A	F	A	F	B
2-Hydroxyethyl Acrylate	C	C	C	B	C	B	•	•	Animal Oils	A	A	A	A	A	A	A	A
2-Methyl Pentene	C	C	C	A	C	A	•	•	Anisole	C	C	C	B	C	B	•	B
Acetaldehyde 100%	F	C	C	A	F	A	F	F	Antimony Chloride	F	B	F	F	F	F	A	A
Acetaldehyde 40%	F	B	B	A	F	A	F	F	Aqua Regia	F	C	F	F	F	F	F	A
Acetic Acid 60%	F	A	A	A	F	A	F	F	Arcenic Chloride	F	B	F	F	F	F	C	F
Acetic Acid, Glacial	F	B	B	A	F	A	F	F	Arsenic Acid	F	B	C	B	F	B	A	A
Acetic Anhydride	F	B	B	A	F	A	F	F	Aviation Fuel	C	C	C	B	C	B	A	A
Acetoacetic Ester	F	B	B	A	F	A	F	F	Barium Carbonate	A	A	A	A	A	A	A	A
Acetone	A	A	A	A	A	A	F	F	Barium Chloride Solution	F	A	F	F	F	F	A	A
Acetone Cyanohydrin	F	B	B	A	F	A	F	F	Barium Hydroxide	F	A	A	A	F	A	A	A
Acetonitrile	B	B	B	A	B	A	C	F	Barium Salts	F	A	B	B	F	B	A	A
Acetophenone	B	B	B	A	B	A	F	F	Barium Sulfate	F	A	A	A	F	A	A	A
Acetyl Chloride	F	F	F	A	F	A	F	B	Beer	F	A	A	A	F	A	A	A
Acetylacetone	B	B	B	A	B	A	C	F	Benzaldehyde	F	C	C	A	F	A	F	F
Acetylene Dichloride	B	B	B	A	B	A	A	F	Benzene	F	C	C	A	F	A	F	A
Acrolein (Acrylaidenhyde)	B	B	B	A	B	A	B	F	Benzoic Acid	F	C	A	A	F	A	F	A
Acrylamide (<50%)	F	C	C	B	F	B	•	•	Benzyl Alcohol	A	A	A	A	A	A	F	A
Acrylic Acid	F	B	B	B	F	B	B	A	Bleach (12.5% CL)	F	B	C	B	F	B	F	B
Acrylonitrile	F	A	A	A	F	A	F	F	Borax (Aqueous)	A	A	A	A	A	A	A	A
Adipic Acid (Aqueous)	A	A	A	A	A	A	A	A	Boric Acid	F	A	A	A	F	A	A	A
Adiponitrile	B	B	B	A	B	A	•	•	Brine	F	A	C	F	F	F	A	A
Allyl Alcohol	A	A	A	A	A	A	A	B	Butadiene	B	B	B	B	B	B	F	B
Allyl Bromide	C	C	C	A	C	A	F	B	Butanol	B	B	B	A	B	A	A	A
Allyl Chloride	C	C	C	B	C	B	F	A	Butyl Acetate	C	C	C	B	C	B	F	F
Aluminum Salt Solutions	F	A	B	A	F	A	A	A	Butyl Alcohol	A	A	A	A	A	A	A	A
Alums	F	A	A	A	F	A	A	A	Butyl Benzene	B	B	B	B	B	B	F	A
Aminoethyl Ethanolamine	F	B	B	A	F	A	•	•	Butyl Carbitol Acetate	C	C	C	B	C	B	B	A
Ammonia Solution	F	A	A	A	F	A	C	B	Butylamine	F	B	B	B	F	B	C	F
Ammonium Chloride Solution	F	A	C	C	F	C	C	A	Butyric Acid	B	B	B	A	B	A	C	C
Ammonium Hydroxide	B	A	B	A	B	A	B	B	Calcium Acetate	B	B	B	B	B	B	F	F
Ammonium Nitrate Solution	F	A	B	B	F	B	A	A	Calcium Alkyl Salicylate	F	A	A	A	F	A	•	•
Ammonium Sulfate Solution	F	A	A	A	F	A	A	A	Calcium Carbonate	F	A	A	A	F	A	A	A
Amyl Acetate	C	C	C	A	C	A	F	A	Calcium Chloride	F	A	C	C	F	C	A	A
									Calcium Hydroxide	F	A	A	A	F	A	A	A
									Calcium Hypochlorite	F	B	C	B	F	B	F	A
									Calcium Nitrate	F	A	A	A	F	A	A	A
									Camphor Oil	C	C	C	B	C	B	B	A

Composite Hose and Chemical Table (Continued)

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Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications) Viton® (Chemical Applications)	
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
Caprylic Acid	A	A	A	A	A	A	C	B
Carbinols	B	B	B	A	B	A	A	F
Carbinol Acetate	C	C	C	B	C	B	B	B
Carbolic Acid	F	A	A	A	F	A	C	A
Carbolic Oils	C	C	C	B	C	B	•	•
Carbon Bisulfide	F	B	B	B	F	B	F	A
Carbon Disulfide	C	C	C	A	C	A	F	A
Carbon Monoxide	F	A	A	A	F	A	C	A
Carbon Tetrachloride	C	C	C	B	C	B	C	A
Carbonic Acid	F	A	A	A	F	A	A	A
Cashew Nutshell Oil	B	B	B	B	B	B	•	•
Castor Oil	F	B	B	B	F	B	A	A
Caustic Potash (<50%)	F	A	B	A	F	A	A	C
Caustic Soda (<50%)	F	A	B	A	F	A	B	C
Cellosolve	B	B	B	B	B	B	F	C
Cetyl Acid	F	B	B	B	F	B	•	•
Chlorinated Solvents	F	B	B	B	F	B	F	A
Chlorine (Dry)	F	F	F	A	F	A	B	A
Chlorobenzene	C	C	C	A	C	A	F	A
Chloroform	C	C	C	A	C	A	F	A
Chrome Alum	F	A	A	A	F	A	A	A
Chromic Acid Aqueous	F	C	C	A	F	A	F	C
Citric Acid	F	A	A	A	F	A	B	A
Coal Tar Naptha	F	B	B	A	F	A	A	A
Copper Chloride	F	A	F	F	F	F	A	A
Copper Nitrate	F	A	A	A	F	A	A	A
Crosetone	B	B	B	A	B	A	A	A
Crotonaldehyde	C	C	C	B	C	B	F	F
Crude Oil	A	A	A	A	A	A	A	A
Cumene	B	B	B	A	B	A	C	A
Cyclohexane	B	B	B	B	B	B	B	A
Cyclohexylamine	F	B	B	A	F	A	C	F
Cyclotane	B	B	B	A	B	A	•	•
Decanol	B	B	B	B	B	B	B	A
Decyl Alcohol	B	B	B	B	B	B	A	B
Decylbutyl Phthalate	B	B	B	B	B	B	F	C
Detergents (2%)	A	A	A	A	A	A	A	A
Dextrin	A	A	A	A	A	A	A	A
Diacetone Alcohol	B	B	B	A	B	A	F	F
Diaminoethylamine	C	B	B	A	C	A	•	•
Diamylamine	C	B	B	A	C	A	B	F
Dibromoethane	F	B	B	A	F	A	F	A
Dibutyl Ether	C	C	C	B	C	B	F	C
Dibutyl Phthalate	B	B	B	A	B	A	F	F

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications) Viton® (Chemical Applications)	
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
Dibutylamine	C	B	B	A	C	A	F	F
Dichloroacetic Acid	F	C	F	F	F	F	F	C
Dichlorobenzene	C	C	C	B	C	B	F	B
Dichlorobutane	C	C	C	A	C	A	F	A
Dichloroethane	C	C	C	B	C	B	F	A
Dichloroethyl Ether	C	C	C	A	C	A	F	C
Dichloroethylene	C	C	C	B	C	B	F	A
Dichloropropane	C	C	C	B	C	B	F	A
Dichloropropylene	C	C	C	B	C	B	•	•
Diethylbenzene	B	B	B	A	B	A	•	•
Diesel Oil	B	B	B	B	B	B	A	A
Diethanolamine	F	A	A	A	F	A	B	F
Diethyl Sulphate	F	B	B	A	F	A	F	A
Diethylamine	F	B	B	A	F	A	C	F
Diethylaminoethanol	C	B	B	A	C	A	•	•
Diethylene Dioxide	C	B	B	A	C	A	F	F
Diethylene Glycol Diethyl Ether	B	B	B	A	B	A	•	•
Diethylene Glycol	A	A	A	A	A	A	A	A
Diisobutyl Ketone	B	B	B	A	B	A	F	F
Diisobutylamine	B	B	B	B	B	B	B	A
Diisobutylene	C	C	C	B	C	B	A	A
Diisooctyl Adipate	B	B	B	A	B	A	F	C
Diisooctyl Phthalate	A	A	A	A	A	A	F	B
Diisopropanolamine	F	B	B	A	F	A	B	C
Diisopropylether	B	B	B	A	B	A	B	B
Dimethyl Ethanolamine	F	B	B	A	F	A	•	•
Dimethyl Formamide	A	A	A	A	A	A	C	F
Dimethyl Hydrogen Phosphite	F	C	C	B	F	B	•	•
Dimethyl Ketone	A	A	A	A	A	A	F	F
Dimethyl Phthalate	B	B	B	A	B	A	F	C
Dimethyl Sulphate	F	B	B	A	F	A	F	F
Dimethyl Sulphide	B	B	B	A	B	A	F	C
Dimethylamine	F	B	B	A	F	A	C	F
Dimethylcyclohexylamine	F	B	B	B	F	B	•	•
Dinitrobenzene	C	C	C	A	C	A	F	A
Diocetyl Phthalate	B	B	B	A	B	A	F	B
Diocetyl Sebacate	B	B	B	A	B	A	F	B
Diocetylamine	B	B	B	A	B	A	B	F
Dioxane	C	B	B	A	C	A	F	F
Dipentene	B	B	B	A	B	A	C	A



Composite Hose and Chemical Table (Continued)

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Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material											
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications)	Viton® (Chemical Applications)										
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)												
Diphenyl Ether	B	B	B	A	B	A	F	A	Ethylene Glycol	A	A	A	A	A	A	A	A	A
Diphenyl Phthalate	B	B	B	A	B	A	F	C	Ethylene Oxide	F	B	B	A	F	A	F	A	F
Dipropylamine	B	B	B	A	B	A	•	•	Ethylhexanoic Acid	F	B	B	B	F	B	•	•	
Dipropylene Glycol	A	A	A	A	A	A	A	A	Ethylhexyl Acrylate	F	B	B	A	F	A	•	F	
Disulphuric Acid	F	F	F	C	F	C	•	•	Ethylhexyl Alcohol	A	A	A	A	A	A	•	•	
Dodecyl Alcohol	B	B	B	A	B	A	A	B	Ethylpropyl Ether	B	B	B	A	B	A	F	C	
Dodecyl Benzene	B	B	B	B	B	B	F	A	Ethylpropyl Ketone	C	C	C	A	C	A	F	F	
Dodecyl Phenol	B	B	B	B	B	B	•	•	Fatty Acids	F	A	A	A	F	A	B	A	
Dodecyltoluene	B	B	B	B	B	B	F	A	Fatty Alcohols	A	A	A	A	A	A	•	•	
Emulsifiers	F	A	A	A	F	A	•	•	Ferric Salts	F	A	B	B	F	B	A	A	
Epichlorohydrin	B	B	B	A	B	A	F	F	Fluosilicic Acid	F	A	A	A	F	A	B	A	
Ethanoic Acid	F	B	B	A	F	A	C	F	Formaldehyde Solutions	A	A	A	A	A	A	A	A	
Ethanolamine	B	A	A	A	B	A	B	F	Formamide	F	A	B	A	F	A	A	F	
Ethoxy Ethanol	C	C	C	B	C	B	A	C	Formic Acid	F	A	B	A	F	A	B	F	
Ethoxy Ethyl Acetate	C	C	C	A	C	A	F	F	Fruit Juices	F	A	A	F	F	F	A	A	
Ethoxy Propanol	C	C	C	B	C	B	•	•	Fuel Oils	B	B	B	A	B	A	A	A	
Ethyl Acetate	C	C	C	A	C	A	F	F	Furfural	C	C	C	A	C	A	F	F	
Ethyl Acrylate	B	B	B	A	B	A	F	F	Furfuryl Alcohol	C	C	C	A	C	A	F	F	
Ethyl Alcohol	A	A	A	A	A	A	A	B	Gallic Acid Solution	C	A	A	A	C	A	B	B	
Ethyl Aluminum Dichloride	F	F	F	C	F	C	F	B	Gasoline	B	B	B	A	B	A	A	A	
Ethyl Butanol	B	B	B	A	B	A	A	B	Gelatine (aqueous)	A	A	A	A	A	A	A	A	
Ethyl Butylamine	C	B	B	B	C	B	•	•	Gluconic Acid	C	A	A	A	C	A	C	A	
Ethyl Chloride	C	C	C	A	C	A	F	B	Glucose (aqueous)	A	A	A	A	A	A	A	A	
Ethyl Cyclohexane	C	C	C	A	C	A	•	•	Glycerine	A	A	A	A	A	A	A	A	
Ethyl Cyclohexylamine	C	C	C	B	C	B	•	•	Glycolic acid (aqueous)	F	A	A	A	F	A	A	A	
Ethyl Ether	F	C	C	A	F	A	C	F	Glycols (aqueous)	A	A	A	A	A	A	A	A	
Ethyl Formate	F	B	B	A	F	A	F	F	Grease	B	B	B	A	B	A	A	A	
Ethyl Iodide	C	C	C	B	C	B	F	B	Green Sulphate Liquor	F	B	B	B	F	B	•	•	
Ethyl Isobutyl Ether	F	B	B	A	F	A	F	•	Heptane	B	B	B	A	B	A	A	A	
Ethyl Methacrylate	C	C	C	A	C	A	•	•	Heptanol	A	A	A	A	A	A	A	B	
Ethyl Methyl Ketone	B	B	B	B	B	B	F	F	Heptanone	B	B	B	A	B	A	•	•	
Ethyl Phthalate	A	A	A	A	A	A	F	•	Heptene	B	B	B	A	B	A	•	•	
Ethyl Silicate	A	A	A	A	A	A	A	A	Heptonic Acid	F	B	B	A	F	A	A	A	
Ethyl Sulphate	B	B	B	A	B	A	F	F	Hexamethylene Diamine	F	B	B	A	F	A	•	•	
Ethyl Vinyl Ether	B	B	B	A	B	A	•	•	Hexamethylene Tetramine	F	B	B	A	F	A	•	•	
Ethylamine	C	B	B	A	C	A	C	F	Hexamethyleneimine	F	C	C	B	F	B	•	•	
Ethylbenzene	B	B	B	A	B	A	F	A	Hexane	B	B	B	A	B	A	A	A	
Ethylene Carbonate	C	B	B	A	C	A	•	•	Hexanol	A	A	A	A	A	A	A	A	
Ethylene Chloride	C	C	C	A	C	A	F	A	Hexene	B	B	B	B	B	B	B	A	
Ethylene Chlorohydrin	B	B	B	A	B	A	F	A	Hexylamine	F	B	B	A	F	A	C	F	
Ethylene Cyanhydrin	F	C	C	A	F	A	B	A	Hexylene Glycol	A	A	A	A	A	A	A	A	
Ethylene Diamine	B	B	B	A	B	A	A	F	Hydrazine Hydrate	F	B	B	A	F	A	B	F	
Ethylene Dibromide	C	B	B	A	C	A	F	B	Hydrobromic Acid	F	A	F	F	F	F	C	A	
Ethylene Dichloride	C	C	C	A	C	A	F	B	Hydrochloric Acid	F	C	F	F	F	F	F	A	

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 • = No data (contact Parker)

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications) Viton® (Chemical Applications)	
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
Hydrofluoric Acid	F	B	F	F	F	F	F	A
Hydrofluosilicic Acid	F	A	A	A	F	A	B	A
Hydrogen Peroxide Solution	F	B	B	B	F	B	F	B
Hydrogen Sulfide (aqueous)	F	A	F	F	F	F	F	F
Hydroquinone	A	A	A	A	A	A	F	F
Iodine Solution	F	B	F	F	F	F	F	C
Iron Salts	F	A	F	A	F	A	A	A
Isoamyl Acetate	C	C	C	A	C	A	F	F
Isoamyl Alcohol	B	B	B	A	B	A	A	A
Isoamyl Bromide	F	B	F	F	F	F	F	B
Isoamyl Butyrate	B	B	B	A	B	A	F	F
Isoamyl Chloride	F	C	C	B	F	B	F	B
Isoamyl Ether	B	B	B	A	B	A	F	F
Isobutraldehyde	F	F	C	B	F	B	C	F
Isobutyl Acetate	C	C	C	B	C	B	F	F
Isobutyl Acrylate	B	B	B	A	B	A	•	•
Isobutyl Alcohol	A	A	A	A	A	A	B	B
Isobutyl Bromide	F	B	F	F	F	F	F	B
Isobutyl Chloride	F	B	F	F	F	F	F	B
Isobutyl Ether	C	C	C	A	C	A	F	F
Isobutyl Formate	C	C	C	C	C	C	•	•
Isobutylamine	F	B	B	A	F	A	F	F
Isobutylmethyl Ketone	B	B	B	A	B	A	F	F
Isodecyl Alcohol	A	A	A	A	A	A	A	B
Isooctane	C	C	C	A	C	A	A	A
Isopentane	C	C	C	A	C	A	A	A
Isophorone	B	B	B	B	B	B	F	F
Isophorone Diamine	F	C	C	B	F	B	•	•
Isophorone Diisocyanate	C	C	C	B	C	B	•	•
Isoprene	B	B	B	A	B	A	•	•
Isopropanolamine	F	B	B	A	F	A	F	F
Isopropyl Acetate	C	C	C	B	C	B	F	F
Isopropyl Alcohol	A	A	A	A	A	A	B	B
Isopropyl Benzene	B	B	B	B	B	B	F	A
Isopropyl Chloride	F	B	F	B	F	B	F	B
Isopropyl Ether	F	B	F	A	F	A	C	F
Isopropyl Toluene	B	B	B	B	B	B	F	A
Isopropylamine	F	B	B	A	F	A	B	F
Isovaleraldehyde	F	C	C	B	F	B	•	•
Jams	B	A	A	A	B	A	A	A
Jet Fuel	C	C	C	A	C	A	A	A
Kerosene	B	B	B	A	B	A	A	A
Ketones	B	B	B	A	B	A	F	F
Lactic Acid	F	A	B	A	F	A	C	A

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems		Nitrile (Petroleum Applications) Viton® (Chemical Applications)	
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
Lanolin	A	A	A	A	A	A	A	A
Lard	A	A	A	A	A	A	A	A
Latex	A	A	A	A	A	A	A	A
Lauryl Alcohol	B	B	B	A	B	A	A	B
Lead Acetate	F	A	A	A	F	A	C	C
Lead Salts	F	A	B	B	F	B	A	A
Ligroin	C	C	C	B	C	B	A	A
Limonene	B	B	B	A	B	A	•	•
Linseed Oil	A	A	A	A	A	A	A	A
Lubricating Oil	B	B	B	A	B	A	A	A
Magnesium Salts	F	A	B	B	F	B	A	A
Maleic Acid Solution	F	A	B	B	F	B	F	A
Maleic Anhydride Solution	F	B	B	B	F	B	F	A
Malic Acid Solution	F	B	B	B	F	B	B	A
Manganese Salts	F	A	B	B	F	B	A	A
Meat Juices	F	A	A	A	F	A	•	•
Mercuric Chloride	F	A	F	F	F	F	B	A
Mesityl Oxide	B	B	B	A	B	A	F	F
Methacrylic Acid	F	B	B	A	F	A	•	•
Methaxylene	F	B	B	B	F	B	•	•
Methyl Acetate	C	C	C	A	C	A	F	F
Methyl Acetone	B	B	B	A	B	A	F	F
Methyl Acrylate	B	B	B	A	B	A	F	F
Methyl Alcohol	A	A	A	A	A	A	A	C
Methyl Butylaldehyde	F	F	F	B	F	B	•	•
Methyl Carbitol	A	A	A	A	A	A	C	•
Methyl Cellosolve	B	B	B	B	B	B	C	F
Methyl Cellosolve Acetate	C	C	C	B	C	B	•	•
Methyl Chloride	C	C	C	A	C	A	C	A
Methyl Cyanide	B	B	B	A	B	A	C	F
Methyl Cyclohexane	B	B	B	A	B	A	F	B
Methyl Formate	C	C	C	A	C	A	F	C
Methyl Isobutyl Ketone	C	C	C	A	C	A	F	F
Methyl Methacrylate	C	C	C	A	C	A	F	F
Methyl Nitrobenzene	B	B	B	B	B	B	•	•
Methyl Pentene	B	B	B	A	B	A	•	•
Methylaceto Acetate	F	C	C	B	F	B	F	F
Methylamine	C	B	B	B	C	B	B	F
Methylamly Ketone	B	B	B	A	B	A	•	•
Methylamyl Acetate	C	C	C	A	C	A	C	C



Composite Hose and Chemical Table (Continued)

Key: **A** = Suitable for use @ 140°F
B = Suitable for use @ AMBIENT temperatures
C = Suitable for INTERMITTENT service only
F = Unsuitable – NOT RECOMMENDED
• = No data (contact Parker)

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner			w/PTFE Hose Liner	Inserts/Stems		Nitrile (Petroleum Applications)	Viton® (Chemical Applications)
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
Methylamyl Alcohol	B	B	B	A	B	A	•	•
Methylbutyl Alcohol	A	A	A	A	A	A	•	•
Methylbutyl Ketone (MBK)	B	B	B	A	B	A	•	•
Methylene Bromide	C	C	C	A	C	A	B	C
Methylene Chloride	C	C	C	B	C	B	F	C
Methylethyl Ketone	C	C	C	A	C	A	F	F
Methylethyl Pyridine	C	C	C	B	C	B	•	•
Methylheptyl Ketone	F	B	B	B	F	B	•	•
Methylstyrene	B	B	B	A	B	A	•	•
Methylter-Butyl Ether (MTBE)	C	C	C	A	C	A	F	F
Mineral Oil	B	B	B	A	B	A	A	A
Mineral Spirits	B	B	B	A	B	A	A	A
Molasses	A	A	A	A	A	A	F	A
Monochlorobenzene	C	B	B	B	C	B	F	B
Monoethanolamine	B	A	A	A	B	A	B	C
Monoethylamine	C	B	B	A	C	A	F	•
Monoisopropanolamine	F	B	B	B	F	B	B	F
Monotrobenzene	B	B	B	A	B	A	•	•
Morpholine	C	B	B	A	C	A	F	A
Naptha	B	B	B	A	B	A	A	A
Naptha Solvent	C	C	C	A	C	A	A	A
Napthalene Solution	A	A	A	A	A	A	F	A
Neohexane	B	B	B	B	B	B	A	A
Nickel Chloride	F	A	C	B	F	B	A	A
Nickel Salts	F	A	B	B	F	B	A	A
Nitric Acid (>60%)	F	F	F	C	F	C	F	C
Nitric Acid (10%)	F	A	A	A	F	A	F	C
Nitric Acid (60%)	F	C	C	C	F	C	F	C
Nitrobenzene	B	B	B	A	B	A	F	B
Nitropropane	C	C	C	A	C	A	F	F
Nitrotoluene	B	B	B	A	B	A	C	C
Nonane	B	B	B	A	B	A	A	A
Nonyl Alcohol	B	B	B	A	B	A	A	B
Nonyl Phenol	C	B	B	A	C	A	•	•
Octane	B	B	B	A	B	A	A	A
Octanol	B	B	B	A	B	A	B	A
Octyl Acetate	C	C	C	A	C	A	F	F
Octyl Acrylate	B	B	B	A	B	A	•	•
Octyl Carbinol	B	B	B	A	B	A	A	B
Oils	B	B	B	A	B	A	A	A
Oleic Acid	F	B	B	A	F	A	B	C
Oleum	F	F	F	B	F	B	F	F
O-Nitrophenol Solution	F	A	A	A	F	A	C	F
Oxalic Acid	F	B	B	A	F	A	B	A

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner			w/PTFE Hose Liner	Inserts/Stems		Nitrile (Petroleum Applications)	Viton® (Chemical Applications)
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)		
Palm Oil	B	B	B	A	B	A	A	A
Parrafin Wax	A	A	A	A	A	A	A	A
Pentane	B	B	B	A	B	A	A	A
Pentanol	A	A	A	A	A	A	A	B
Pentanone	B	B	B	A	B	A	F	F
Pentene	B	B	B	A	B	A	B	A
Perchloroethylene	C	C	C	A	C	A	C	A
Perchloric Acid	F	B	F	F	F	F	F	A
Petrolatum	A	A	A	A	A	A	A	A
Petroleum	A	A	A	A	A	A	A	A
Petroleum Ether	C	C	C	A	C	A	A	A
Petroleum Naptha	C	C	C	A	C	A	A	A
Phenol	B	A	A	A	B	A	F	A
Phenoxyethanol	C	C	C	B	C	B	•	•
Phenylhydrazine	F	C	C	B	F	B	•	•
Phosphoric Acid	F	A	A	A	F	A	C	A
Phosphorus	F	F	F	F	F	F	•	•
Phosphorus Oxychloride	F	C	F	F	F	F	F	A
Phosphorus Pentoxide	F	A	B	B	F	B	•	•
Phosphorus Trichloride	F	B	A	A	F	A	F	A
Phthalic Acid	F	B	B	B	F	B	•	•
Phthalic Anyhydride	F	F	F	F	F	F	•	•
Picric Acid	F	B	B	B	F	B	C	C
Pine Oil	B	B	B	A	B	A	C	B
Pinene	B	B	B	A	B	A	A	A
Plasticisers	B	B	B	A	B	A	•	•
Polyethylene Glycol	B	B	B	A	B	A	A	A
Polyethylene Polyamines	F	C	C	A	F	A	A	A
Polypropylene Glycol	B	B	B	A	B	A	A	A
Potassium Salts	F	A	B	A	F	A	A	A
Propionaldehyde	F	C	C	A	F	A	C	F
Propionic Acid	F	B	B	A	F	A	C	F
Propionic Anhydride	F	C	C	B	F	B	•	•
Propionitrile	C	C	C	C	C	C	F	F
Propyl Acetate	C	C	C	A	C	A	F	F
Propyl Alcohol	A	A	A	A	A	A	A	A
Propylamine	F	B	B	A	F	A	C	F
Propylene Glycol	A	A	A	A	A	A	A	A
Propylene Oxide	F	B	B	B	F	B	F	F
Prussic Acid	F	A	A	A	F	A	•	•
Pyridine	F	B	B	A	F	A	F	F
Pyrosulphuric Acid	F	F	F	B	F	B	C	C
Salt Solution	F	A	B	A	F	A	A	A
Sea Water	F	A	B	B	F	B	A	A

Composite Hose and Chemical Table (Continued)

Key: A = Suitable for use @ 140°F F = Unsuitable – NOT RECOMMENDED
 B = Suitable for use @ AMBIENT temperatures • = No data (contact Parker)
 C = Suitable for INTERMITTENT service only

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems			
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)	Nitrile (Petroleum Applications)	Viton® (Chemical Applications)
Sewage	F	B	B	B	F	B	A	A
Silicon Oil	A	A	A	A	A	A	A	A
Silver Halides	F	A	F	F	F	F	C	C
Silver Salts	F	A	B	B	F	B	A	A
Soap Solution	B	A	A	A	B	A	A	A
Sodium Chloride	F	A	F	F	F	F	A	A
Sodium Dichromate	F	B	F	F	F	F	C	C
Sodium Hydrosulfide	F	A	B	B	F	B	C	B
Sodium Hydroxide	F	A	B	B	F	B	C	C
Sodium Hypochlorite	F	C	F	F	F	F	F	A
Sodium Salts	F	A	B	B	F	B	B	A
Sodium Thiosulfate	F	A	B	B	F	B	A	A
Starch(aqueous)	B	A	A	A	B	A	A	A
Styrene Monomer	B	B	B	A	B	A	F	A
Sugar Syrup	A	A	A	A	A	A	A	A
Sulphamic Acid	F	A	A	A	F	A	B	C
Sulpher Dioxide	F	C	C	C	F	C	C	A
Sulpher Liquid	F	F	F	F	F	F	B	A
Sulphuric Acid (<20%)	F	B	C	B	F	B	B	A
Sulphuric Acid (>85%)	F	C	C	B	F	B	F	A
Sulphuric Acid (20%-80%)	F	B	F	C	F	C	F	A
Sulphurous Acid	F	B	B	B	F	B	C	A
Sulphuryl Chloride	F	F	F	F	F	F	C	A
Tall Oil	A	A	A	A	A	A	A	A
Tallow	A	A	A	A	A	A	A	A
Tannic Acid	F	A	A	A	F	A	C	A
Tartaric Acid	F	A	B	A	F	A	C	A
Tetrachloroethane	C	C	C	A	C	A	F	A
Tetrachloroethylene	C	C	C	A	C	A	F	A
Tetraethylene Glycol	B	B	B	A	B	A	A	A
Tetrahydrofuran	F	C	B	A	F	A	F	F
Tetrahydronapthalene	C	C	C	A	C	A	•	•
Tetrathylene Pentamine	F	B	B	B	F	B	•	•
Thionyl Chloride	F	F	F	C	F	C	•	•
Tin Halides	F	A	F	F	F	F	A	A
Tin Salts	F	A	B	F	F	F	A	A
Titanium Tetrachloride	F	C	F	F	F	F	B	A
Toluene	C	C	C	A	C	A	C	A
Toluene Diisocyanate	B	B	B	A	B	A	C	B
Transmission Oil	B	B	B	A	B	A	B	A
Tributyl Phosphate	B	B	B	A	B	A	F	F
Tributylamine	B	B	B	A	B	A	B	F
Trichloroacetic Acid	F	A	B	B	F	B	C	F

Chemical or Material Conveyed	Hose Inner Wire				Coupling Material		Seal Material	
	w/Polypropylene Hose Liner		w/PTFE Hose Liner		Inserts/Stems			
	G Galvanized	P Polypropylene	S Stainless Steel	S Stainless Steel	Carbon Steel	Stainless Steel (316)	Nitrile (Petroleum Applications)	Viton® (Chemical Applications)
Trichlorobenzene	F	C	C	A	F	A	F	B
Trichloroethane	C	C	C	A	C	A	F	A
Trichloropropane	C	C	C	A	C	A	F	A
Tricresyl Phosphate	B	B	B	A	B	A	F	A
Tridecanol	B	B	B	A	B	A	A	B
Triethylamine	F	B	B	B	F	B	A	F
Triethylbenzene	B	B	B	A	B	A	•	•
Triethylene Glycol	A	A	A	A	A	A	A	A
Triethylene Tetramine	F	B	B	A	F	A	•	•
Trimethyl Acetic Acid	F	A	A	A	F	A	•	•
Trimethyl Benzene	B	B	B	A	B	A	B	A
Trioctyl Phosphate	B	B	B	A	B	A	F	B
Trithanolamine	F	B	B	A	F	A	•	•
Trityl Phosphate	B	B	B	A	B	A	F	A
Turpentine	C	C	C	A	C	A	B	A
Urea/Ammonium Salt Solution	B	A	B	A	B	A	A	A
Valeraldehyde	C	C	C	A	C	A	C	F
Vaseline	A	A	A	A	A	A	A	A
Vinegar	F	A	A	A	F	A	C	A
Vinyl Acetate	F	B	B	A	F	A	F	A
Vinyl Ethyl Ether	C	C	C	A	C	A	•	•
Vinyl Toluene	B	B	B	A	B	A	F	A
Vinylidene Chloride	C	C	C	A	C	A	F	A
White Spirits	B	B	B	B	B	B	A	A
Wine	F	B	B	A	F	A	A	A
Xylene/Xylenol	B	B	B	A	B	A	C	A
Yeast(aqueous)	F	A	A	A	F	A	A	A
Zinc Halides	F	A	F	F	F	F	A	A
Zinc Salts	F	A	B	B	F	B	A	A

Metal/Coupling Corrosion Resistance Table

⚠️WARNING! The following data has been compiled from generally available sources and should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

Key: E = Excellent • G = Good • C = Conditional • Blank = No Data • X = Not Recommended

Chemical Or Material Conveyed	Aluminum	Brass	Carbon Steel	Stainless Steel 202, 302, 304, 308	Stainless Steel 316	Stainless Steel 410, 416, 430
	Aluminum	Brass	Carbon Steel	Stainless Steel 202, 302, 304, 308	Stainless Steel 316	Stainless Steel 410, 416, 430
Acetate, Solvents, Crude	C	C		E	E	G
Acetate, Solvents, Pure	E	E		E	E	E
Acetic Acid	X	X	X	G	G	G
Acetic Acid Vapors	C	X	X	G	G	X
Acetic Anhydride	G	X	X	G	G	X
Acetone	E	E	E	E	E	E
Acetylene	E	X	E	E	E	E
Alcohols	E	G	E	E	E	E
Aluminum Sulfate	X	X	X	C	G	X
Alums	C	C	X	C	G	X
Ammonia Gas	C	X	E	E	E	E
Ammonium Chloride	C	X	X	C	C	X
Ammonium Hydroxide	G	X	X	E	E	C
Ammonium Nitrate	G	X	E	E	E	E
Ammonium Phosphate		X		E	E	E
Ammonium Phosphate, Acid		C		G	E	C
Ammonium Phosphate, Neutral	C	C	X	E	E	E
Ammonium Sulfate	X	X	X	G	G	G
Asphalt	E	E	E	E	E	E
Beer	E	E	X	E	E	E
Beet Sugar Liquors	E	G	C	E	E	G
Benzene, Benzol	E	E	E	E	E	E
Benzine	E	E	E	E	E	E
Biodiesel	E	X	G	E	E	E
Borax		E	G	E	E	E
Boric Acid	E	C	C	G	E	C
Butane, Butylene	E	E	E	E	E	E
Butadiene	E	E	E	E	E	E
Calcium Bisulfate		X		G	E	X
Calcium Hypochlorite	X	X	X	C	G	C
Cane Sugar Liquors	E	E	E	E	E	E
Carbon Dioxide, Dry	E	E	E	E	E	E
Carbon Dioxide, Wet, (AQ)	E	E	G	E	E	E
Carbon Disulfide	G	C	G	E	E	G
Carbon Tetrachloride	C	E	E	E	E	E
Chlorine, Dry	X	X	G	G	E	G
Chlorine, Wet	X	C	X	X	C	X
Chromic Acid	X	X		G	G	C
Citric Acid	E	X	X	X	E	C
Coke Oven Gas	G	C	E	E	E	E
Copper Sulfate	X	X	X	E	E	E
Core Oils		E		E	E	E
Cottonseed Oil	E	C	C	E	E	E
Creosote	E	C	G	E	E	E
Ethers	E	C	C	E	E	E
Ethylene Glycol		G	G	E	E	E
Ferric Chloride	X	X	X	X	X	X
Ferric Sulfate	X	X	X	E	E	C
Formaldehyde, 50%	G	G	C	E	E	C
Formic Acid	X	G	X	E	E	E
Freon	E	E	C	E	E	E
Furfural	E	G	E	E	E	E
Gasoline, Refined	E	E	E	E	E	E
Gasoline, Sour	C	C	E	E	E	C
Gelatin	E	C	X	E	E	X
Glucose	E	E	E	E	E	E
Glue	E	E	E	E	E	E
Glycerine or Glycerol	E	G	E	E	E	E
Hydrochloric Acid, 37%	X	X	X	X	C	X
Hydrocyanic Acid, 10%	E	X	X	E	E	X
Hydrofluoric Acid	X	X	X	X	X	X
Hydrogen	E	E	E	E	E	E
Hydrogen Fluoride		C		X	E	X
Hydrogen Peroxide	E	X	C	G	E	E
Hydrogen Sulfide, Dry	C	C	C	G	C	C
Hydrogen Sulfide, Wet	X	X	X	G	E	X
Lacquers, Lacquer Solvents	E	G	C	E	E	E
Lactic Acid	C	X	X	C	G	E
Lime, Sulfur	G	X	G	E	G	E
Linseed Oil	E	E	E	E	E	E
Magnesium Chloride	X	C	C	G	X	X
Magnesium Hydroxide	X	G	E	E	E	E
Magnesium Sulfate	C	G	G	E	E	E
Mercuric Chloride	X	X	X	X	X	X
Mercury	X	X	E	E	E	E
Milk	X	C	X	E	E	G
Molasses	G	E	G	E	E	G
Natural Gas	E	G	E	E	E	E
Nickel Chloride	X	X	X	C	G	E
Nickel Sulfate	X	C	X	G	E	C
Nitric Acid	C	X	X	G	G	G
Oleic Acid	E	C	X	G	E	G
Oxalic Acid	X	X	X	G	E	C
Oxygen	E	E	E	E	E	E
Palmitic Acid	E	E	C	G	E	C
Petroleum Oils, Sour		C		E	E	C
Petroleum Oils, Refined	E	E	E	E	E	E
Phosphoric Acid, 25%	X	X	X	C	E	C

Metal/Coupling Corrosion Resistance Table (Continued)

Key: E = Excellent • G = Good • C = Conditional • Blank = No Data • X = Not Recommended

Chemical Or Material Conveyed	Material						Chemical Or Material Conveyed	Material					
	Aluminum	Brass	Carbon Steel	Stainless Steel 202, 302, 304, 308	Stainless Steel 316	Stainless Steel 410, 416, 430		Aluminum	Brass	Carbon Steel	Stainless Steel 202, 302, 304, 308	Stainless Steel 316	Stainless Steel 410, 416, 430
Phosphoric Acid, 25%-50%	X	X	X	X	G	C	Stearic Acid	C	C	X	G	E	G
Phosphoric Acid, 50%-85%	X	X	X	X	G	C	Sulfate Liquors		X	X	E	E	E
Picric Acid	C	X	X	C	E	C	Sulfur	C	X	X	G	E	C
Potassium Chloride	X	E	C	G	C	C	Sulfur Chloride	X	X	X	X	X	X
Potassium Hydroxide	X	X	X	E	E	E	Sulfur Dioxide, Dry	E	E	G	E	E	E
Potassium Sulfate	E	C	G	E	E	E	Sulfur Dioxide, Wet	C	X		G	E	X
Propane	E	E	E	E	E	E	Sulfuric Acid, 1%-50%	C	X	X	X	G	X
Rosin			X	E	E	E	Sulfuric Acid, 50%-70%	X	X	X	X	C	X
Shellac	G	G		E	E	E	Sulfuric Acid, 70%-90%	X	X	X	X	X	X
Sludge Acid		X		X	C	X	Sulfuric Acid, 90%-98%	X	X	X	X	X	X
Soda Ash	X	C	E	E	E	E	Sulfurous Acid	X	X	X	C	G	C
Sodium Bicarbonate	X	C	X	E	E	E	Tannic Acid	X	C	X	E	E	C
Sodium Bisulfate	C	X	X	E	E	C	Tar	E	G	E	E	E	G
Sodium Chloride	E	E	C	G	C	E	Toluene, Toluol	E	E	E	E	E	E
Sodium Cyanide	X	X	G	E	E	E	Trichlorethylene	E	E	C	E	E	E
Sodium Hydroxide	X	X	X	G	G	G	Turpentine	E	E	E	E	E	E
Sodium Hypochlorite	X	X	X	X	X	X	Varnish		C	X	E	E	C
Sodium Metaphosphate	E	X	X	E	E	G	Vegetable Oils	E	G	E	E	E	E
Sodium Nitrate	E	C	E	E	E	E	Vinegar	X	X	X	G	E	E
Sodium Perborate	E	C	C	E	E	E	Water, Acid	X	X	X	E	E	G
Sodium Peroxide	E	X	X	E	E	E	Water, Fresh	C	E	E	E	E	E
Sodium Phosphate, Acid		G	G	G	E	E	Water, Salt	X	X	X	G	G	C
Sodium Phosphate, Alkaline		C	C	E	E	E	Whiskey		G	X	E	E	C
Sodium Phosphate, Neutral		G	C	E	E	E	Wines		G	X	E	E	C
Sodium Silicate	X	C	E	E	E	E	Xylene, Xylol	E	E	G	E	E	E
Sodium Sulfate	C	G	E	E	E	E	Zinc Chloride	X	X	X	C	C	X
Sodium Sulfide		X	X	E	E	E	Zinc Sulfate	C	C	X	G	E	E
Sodium Thiosulfate	G	X	X	E	E	E							