

RESISTANCE RATING		
A	Good Resistance:	Usually suitable for service.
B	Fair Resistance:	Chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
C	Depends on Condition:	Moderate service may be possible if chemical exposure is limited or infrequent.
D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Acetal	C	C	B	D	C	C	B	D	A	B	A	A
Acetaldehyde	D	D	A	D	C	C	A	D	A	A	A	A
Acetamide	C	D	A	A	B	B	A	B	A	A	A	A
Acetate Solvents	C	D	C	D	D	D	A	D	A	B	A	A
Acetic Acid, 10%	B	B	B	B	C	C	A	C	A	A	A	A
Acetic Acid, 30%	D	D	B	D	C	B	A	C	A	B	A	A
Acetic Acid, 50%	D	D	B	D	C	D	A	D	A	B	A	A
Acetic Acid, Glacial	D	D	B	D	D	D	A	D	-	A	A	A
Acetic Anhydride	D	D	B	D	D	D	B	D	A	B	A	A
Acetic Ester (Ethyl Acetate)	D	D	B	D	D	D	A	D	A	B	A	A
Acetic Ether (Ethyl Acetate)	D	D	B	D	D	C	A	D	A	B	A	A
Acetic Oxide (Acetic Anhydride)	D	D	B	D	D	D	B	D	A	B	A	A
Acetone	C	C	B	D	C	C	A	D	A	A	A	A
Acetophenome	C	D	A	D	D	D	A	D	A	A	A	A
Acetyl Acetone	D	D	B	C	D	D	B	D	A	A	A	A
Acetyl Chloride	D	D	C	D	D	D	C	B	B	C	B	A
Acetylene	D	D	A	A	B	B	B	A	A	A	A	A
Acrylonitrile	C	D	D	D	C	C	D	D	A	C	A	A
Air	A	A	A	A	A	A	A	A	A	A	A	A
Alcohol Aliphatic	A	B	A	A	A	A	A	C	A	A	A	B
Alcohol, Aromatic	C	D	D	C	C	D	D	A	A	B	A	A
Alk-Tri (Trichloroethylene)	D	D	D	D	D	D	D	A	B	C	B	A
Allyl Alcohol	A	B	A	A	A	A	A	B	A	A	A	A
Allyl Bromide	D	D	D	D	D	D	D	B	B	B	B	A
Allyl Chloride	D	D	D	D	D	D	D	A	B	B	B	A
Alum (Alum Potassium Sulfate)	A	B	A	A	A	A	A	A	A	A	A	A
Aluminum Acetate	C	B	A	C	C	B	A	A	A	A	A	A
Aluminum Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Floride	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Hydroxide	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonia Anhydrous	TITAN HOSE NOT AVAILABLE											
Ammonia Liquid	B	B	A	B	A	A	A	A	A	A	A	A
Ammonia in Water	B	B	B	C	B	B	A	B	A	A	A	A
Ammonia, Gas (Cold)	TITAN HOSE NOT AVAILABLE											
Ammonia Gas (150°F)	TITAN HOSE NOT AVAILABLE											
Ammonium Carbonate	A	A	A	C	A	A	A	A	A	A	A	A
Ammonium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Hydroxide	B	B	A	B	B	A	A	B	-	A	A	A
Ammonium Metaphosphate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Ammonium Persulfate	A	D	A	D	A	A	B	A	A	A	A	A
Ammonium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Sulfate	A	B	A	A	A	A	A	A	A	A	A	A
Ammonium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Thiocyanate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Thiosulfate	A	A	A	A	A	A	A	A	A	A	A	A
Amyl Acetate	C	D	B	D	D	D	A	A	-	A	A	A
Amyl Acetone	D	D	B	D	D	D	B	D	A	A	A	A
Amyl Alcohol	A	B	A	A	A	A	A	A	A	A	A	A
Amylamine	TITAN HOSE NOT AVAILABLE											
Amyl Borate	D	D	D	A	A	C	D	A	A	C	A	A
Amyl Chloride	D	D	D	D	D	D	D	A	A	C	A	A
Amyl Chloronaphthalene	D	D	D	D	D	D	D	A	A	C	A	A
Amyl Napthalene	D	D	D	D	D	D	D	A	A	C	A	A
Amyl Oleate	D	D	B	D	D	D	B	C	A	B	A	A
Amyl Phenol	D	D	D	D	D	D	D	A	A	C	A	A
Anethole	D	D	D	D	D	D	D	B	B	C	B	A
Aniline	D	D	B	D	C	C	D	B	A	C	A	B
Aniline Dyes	B	C	B	D	B	B	B	B	A	A	A	A
Aniline Hydrochloride	B	C	B	B	D	B	B	B	A	A	A	A
Animal Fats	D	D	C	A	D	D	C	A	A	A	A	A
Animal Grease	D	D	D	A	C	D	C	A	A	A	A	A
Animal Oils	D	D	C	A	D	D	C	A	A	A	A	A
Ansul Ether	D	D	D	D	D	D	C	D	A	B	A	A
Antifreeze	A	A	A	A	A	A	A	A	A	A	A	A
Antimony Chloride	D	B	B	A	D	B	D	A	A	A	A	A
Antimony Pentachloride	D	D	D	B	D	D	D	A	B	A	B	A
Aqua Regia	D	D	C	D	D	B	B	A	D	B	B	A
Aromatic Hydrocarbons	D	D	D	D	D	D	D	A	-	-	-	A
Arquad	A	A	A	A	A	A	A	A	A	A	A	A
Arsenic Acid	B	A	A	A	B	A	A	A	A	A	A	A
Arsenic Chloride	D	D	D	C	A	D	D	D	D	-	D	A
Arsenic Trichloride	D	D	D	A	A	D	D	D	D		D	A
Asphalt	B	D	D	B	C	B	D	A	D	D	B	A
ASTM #1 Oil	D	D	D	A	A	B	D	A	A	A	A	A
ASTM #2 Oil	D	D	D	A	B	D	D	A	-	-	-	A
ASTM #3 Oil	D	D	D	A	C	B	D	A	-	-	-	A
Aviation Gasoline	D	D	D	A	D	D	D	A	-	-	-	A
Barium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Barium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Barium Hydroxide	A	A	A	A	A	A	A	A	A	A	A	A
Barium Sulfate	A	A	A	A	A	A	A	A	A	A	-	A

The chemical resistance chart lists elastomers commonly used by Titan for manufacturing hose products. Beneath each elastomer or synthetic rubber material is a listed chemical rating. **This rating is based on application temperatures not to exceed 70°F (21.1°C) unless otherwise specified.** The percentage of concentration of the chemical is highly significant

(eg. Hydrochloric acid 5% versus 37%) and our recommendation may vary considerably based on this information. **These charts are offered as a guideline only.** There are many variables to be considered with each application. **If there is any question about the resistance of a listed elastomer, please contact Titan's Technical Team at 800-242-HOSE(4673).**

All ratings are based on material at ambient temperature (70° F)

CHEMICAL RESISTANCE

RESISTANCE RATING		
A	Good Resistance:	Usually suitable for service.
B	Fair Resistance:	Chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
C	Depends on Condition:	Moderate service may be possible if chemical exposure is limited or infrequent.
D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Barium Sulfide	A	B	A	A	A	A	A	A	A	A	A	A
Beer	A	A	A	A	B	A	A	A	A	A	A	A
Beet Sugar Liquors	A	A	A	A	B	A	A	A	A	A	A	A
Benzaldehyde	D	D	B	D	D	D	A	D	A	A	A	A
Benzene (Benzol)	D	D	D	D	D	D	A	-	-	-	-	A
Benzene Sulphonic Acid	D	D	D	D	B	B	D	A	A	A	A	A
Benzine Solvent (Ligroin)	D	D	D	A	D	C	D	A	-	-	-	A
Benzoic Acid	D	D	D	D	B	D	D	A	A	A	A	A
Benzoic Aldehyde	D	D	B	D	D	D	A	D	A	A	A	A
Benzotrichloride	-	-	-	-	-	-	-	-	-	-	-	A
Benzoyl Chloride	D	D	D	D	D	D	B	B	B	B	B	A
Benzyl Acetate	D	D	B	D	D	B	B	D	A	B	A	A
Benzyl Alcohol	D	D	B	D	D	B	B	A	-	-	-	A
Benzyl Chloride	D	D	D	D	D	D	D	A	-	-	-	A
Bichromate of Soda (Sodium Dichromate)	B	B	A	A	B	B	A	A	A	-	A	A
Black Sulfate Liquor	A	A	A	A	A	A	A	A	A	A	A	A
Blast Furnace Gas	C	C	C	C	A	C	C	A	A	A	A	A
Bleach Solutions	D	D	B	D	D	C	B	B	B	A	B	A
Borax	A	A	A	A	A	A	A	A	A	A	A	A
Bordeaux Mixture	B	B	A	A	A	A	A	A	A	A	A	A
Brandy	FDA Tube Required											
Brine	A	A	A	A	A	A	A	A	A	A	A	A
Bromine	D	D	D	D	D	C	D	A	B	B	D	A
Bromine Water	D	D	C	C	B	A	C	A	A	-	A	A
Bromobenzene	D	D	D	D	D	D	D	B	C	-	C	A
Bunker Oil	D	D	D	A	B	D	D	A	A	B	A	A
Butanol	A	A	A	A	A	A	A	A	A	A	A	A
Butane	D	D	D	A	B	A	D	A	-	-	-	A
Butter	C	C	A	A	B	A	A	A	-	-	-	-
Butyl Acetate	C	D	B	D	D	D	A	D	-	A	-	A
Butyl Acrylate	D	D	D	D	D	D	D	D	B	-	B	A
Butylamine	B	C	C	C	D	C	C	D	A	A	A	A
Butyl Benzene	D	D	D	D	D	D	D	A	A	-	A	-
Butyl Bromide	D	D	D	D	D	D	D	B	B	-	B	-
Butyl Butyrate	D	D	C	D	D	D	B	C	B	-	B	-
Butyl Carbitol	D	D	A	B	B	B	A	A	A	-	A	-
Butyl Cellosolve	D	D	A	B	B	B	A	D	A	-	A	-
Butyl Chloride	D	D	C	D	D	D	D	A	B	-	B	A
Butyl Ether	D	D	C	B	B	B	C	D	A	A	A	A
Butyl Ethyl Acetaldehyde	D	D	C	D	D	D	D	D	A	-	A	-
Butyl Ethyl Ether	D	D	C	D	D	B	C	C	A	-	A	A
Butyl Oleate	D	D	B	D	D	D	B	A	A	-	A	-
Butyl Phtalate	D	D	C	D	D	D	A	C	-	-	-	-
Butyl Stearate	D	D	C	B	D	D	C	A	A	A	A	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Butyraldehyde	C	D	D	D	D	D	D	D	A	B	A	A
Butyric Acid	C	D	C	C	C	B	C	C	A	A	A	A
Butyric Anhydride	C	D	C	C	D	B	C	C	A	-	A	A
Calcium Acetate	C	D	A	D	D	D	A	D	A	A	A	A
Calcium Bisulfate	C	C	B	A	A	A	B	A	A	A	A	A
Calcium Bisulfite	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Hypochlorite	D	D	A	D	D	B	A	A	B	B	A	A
Calcium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Galiche Liquor	A	A	A	A	A	A	A	A	A	A	A	A
Cane Sugar Liquors	A	A	A	A	A	A	A	A	A	A	A	A
Carbitol	D	D	A	B	B	B	B	A	A	-	A	-
Carbitol Acetate	D	D	B	D	D	D	B	D	A	-	A	-
Carbolic Acid	C	C	C	C	C	C	A	A	A	A	A	A
Carbon Bisulfide	D	D	D	D	D	D	D	A	-	-	-	A
Carbon Dioxide	A	A	A	A	A	A	A	A	A	A	A	A
Carbon Disulfide	D	D	D	D	D	D	D	A	A	C	C	A
Carbonic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Carbon Monoxide	C	C	C	C	C	B	C	A	A	A	A	A
Carbon Tetrachloride	D	D	D	C	D	D	D	A	-	-	-	A
Carbon Tetrafluoride	D	D	D	C	D	D	D	-	C	-	C	A
Castor Oil	A	A	A	A	A	A	A	A	A	A	A	A
Caustic Potash	A	B	A	A	B	A	A	C	A	A	A	A
Caustic Soda	A	B	A	B	B	B	A	C	A	-	A	-
Cellosolve	B	B	A	D	D	B	A	C	A	A	A	A
Cellulose Acetate	C	D	B	D	C	C	B	D	B	A	B	A
Cellulube	C	D	B	D	D	D	A	C	A	-	A	-
China Wood Oil	D	D	A	A	B	B	A	C	A	A	A	A
Chlorine Dioxide	D	D	D	D	D	C	D	A	B	-	B	-
Chlorine Gas	D	D	D	D	D	D	D	A	-	-	-	A
Chlorine Water Solns	D	D	D	D	D	D	D	C	A	A	B	A
Chloroacetic Acid	D	C	D	C	C	A	A	D	A	A	A	A
Chloroacetone	D	D	B	D	D	B	D	D	A	-	A	-
Chlorobenzene	D	D	D	D	D	D	D	A	B	B	B	A
Chlorobutane	D	D	D	D	D	D	D	A	B	-	B	-
Chlorobutadiene	D	D	D	D	D	D	D	A	B	-	B	-
Chloroform	D	D	D	D	D	D	D	A	B	B	B	A
Chlorinated Hydrocarbons	D	D	D	D	D	D	D	A	-	-	-	A
Chloropentane	D	D	D	D	C	D	D	A	A	-	A	-
Chlorophenol	D	D	D	C	D	D	A	A	B	A	A	A

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D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Chloropropanone	D	D	C	D	D	C	D	-	-	-	A	A
Chlorosulfonic Acid	D	D	D	C	C	D	D	D	B	-	D	-
Chlorothene	D	D	D	D	D	D	D	A	B	A	B	A
Chlorotoluene	D	D	D	D	D	D	D	A	-	-	-	A
Chromic Acid	D	D	C	D	D	A	C	C	B	-	C	A
Citric Acid	A	A	A	B	A	A	A	A	A	A	A	A
Coal Oil	D	D	D	A	B	D	D	A	A	-	A	-
Coal Tar	D	D	D	A	B	B	B	A	A	-	A	A
Coal Tar Naptha	D	D	D	C	C	D	D	A	-	-	-	A
Cobalt Chloride	A	A	A	A	A	A	A	A	A	-	A	-
Coconut Oil	D	D	B	A	B	B	A	A	A	-	A	A
Cod Liver Oil	D	D	A	A	B	B	A	A	A	A	A	A
Coke Oven Gas	C	C	C	C	C	A	D	D	C	A	D	A
Copper Arsenate	A	A	A	A	A	A	A	A	A	A	A	A
Copper Chloride	C	A	A	A	B	B	A	A	A	A	A	A
Copper Cyanide	A	A	A	A	A	A	A	A	A	A	A	A
Copper Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Copper Nitrite	A	A	A	A	A	A	A	A	A	A	A	A
Copper Sulfate	C	A	B	A	A	A	A	A	A	A	A	A
Copper Sulfide	C	A	A	A	A	A	A	A	A	-	A	A
Corn Oil	D	C	A	A	B	B	C	A	A	A	A	A
Cottonseed Oil	D	C	A	A	B	B	C	A	A	A	A	A
Creosote (Coal Tar)	D	D	D	A	B	C	D	B	-	-	-	A
Creosote (Wood)	D	D	D	A	B	C	D	A	-	-	A	A
Creosols	C	D	C	C	D	B	D	A	-	-	-	A
Cresylic Acid	D	D	D	C	C	C	D	A	A	-	A	A
Crude Oil	D	D	D	A	C	D	D	A	-	-	-	A
Cumene	D	D	D	C	C	D	D	A	A	B	A	A
Cupric Carbonate	C	C	A	B	B	B	A	A	A	A	A	A
Cupric Chloride	C	C	A	A	B	A	A	A	A	A	A	A
Cupric Nitrate	C	C	A	A	B	A	A	A	A	A	A	A
Cupric Nitrite	C	C	A	A	B	A	A	A	A	A	A	A
Cupric Sulfate	C	B	A	A	B	B	A	A	A	A	A	A
Cyclohexane	D	D	D	B	D	D	D	A	-	-	-	A
Cyclohexanone	D	D	D	D	D	D	D	C	-	-	-	A
Cyclohexanol	D	D	D	B	B	D	D	B	A	B	A	A
Cyclopentane	D	D	D	C	D	D	D	A	A	B	A	A
P-Cymene	D	D	D	C	D	D	D	A	A	B	A	A
DDT in Kerosene	D	D	D	A	B	C	D	A	A	B	A	A
Decaline	D	D	D	D	D	D	D	A	A	D	A	A
Decane	D	D	D	B	D	D	D	A	A		A	
Detergent Solutions	B	B	A	A	B	A	A	A	A	B	A	A
Diacetone Alcohol	D	D	A	D	B	B	B	D	A	A	A	A
Diamylamine	TITAN HOSE NOT AVAILABLE											
Dibenzyl Ether	D	D	B	D	D	D	D	C	A	A	A	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Dibenzylsebacate	C	D	B	D	D	D	B	B	A	A	A	A
Dibromobenzene	D	D	D	D	D	D	D	A	B	-	B	A
Dibutylamine	TITAN HOSE NOT AVAILABLE											
Dibutyl Ether	D	D	D	D	D	D	B	C	A	A	A	A
Dibutyl Phthalate	D	D	B	D	D	D	A	D	A	A	A	A
Dibutyl Sebacate	D	D	B	D	D	D	B	B	B	A	B	A
Dicalcium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Dichloroacetic Acid	D	D	C	D	D	D	C	C	A	-	A	A
P-Dichlorobenzene	D	D	D	D	D	D	D	A	D	B	D	A
Dichlorobutane	D	D	D	D	D	D	D	A	A	-	A	A
Dichloroisopropyl Ether	D	D	C	D	D	D	C	C	A	-	A	-
Dicyclohexylamine	TITAN HOSE NOT AVAILABLE											
Dichlorodifluoromethane (Freon 12)	D	D	D	A	B	D	D	A	A	D	A	A
Dichloroethane	D	D	C	D	D	D	D	A	A	A	C	A
Dichloroethylene	D	D	D	D	D	D	D	A	C	D	C	A
Dichloroethyl Ether	D	D	D	D	D	D	D	C	A	B	A	A
Dichlorohexane	D	D	D	D	D	D	D	A	A	A	A	A
Dichloromethane	D	D	D	D	D	D	D	A	A	A	A	A
Dichloropentane	D	D	D	D	D	D	D	A	A	B	A	A
Dieldrin in Xylene	D	D	D	D	D	D	D	A	A	-	A	-
Dieldrin in Xylene & Water Spray	D	D	D	B	B	D	D	A	A	-	A	-
Diesel Oil	D	D	D	A	D	B	D	A	B	B	B	A
Diethanolamine	C	D	A	B	-	D	A	D	A	A	A	A
Diethylamine	B	B	B	C	B	D	B	D	A	-	A	A
Diethyl Benzene	D	D	D	D	D	D	D	A	A	B	A	A
Diethyl Ether	D	D	D	B	C	D	D	D	A	-	A	-
Diethylene Dioxide	D	D	B	D	D	D	B	D	A	A	A	A
Diethylenetriamine	TITAN HOSE NOT AVAILABLE											
Diethyl Oxalate	C	D	C	D	D	D	A	C	A	B	A	A
Diethyl Phthalate	D	D	A	D	D	D	C	C	A	B	A	A
Diethyl Sebacate	D	D	A	D	D	D	C	B	A	B	A	A
Diethyl Sulfate	D	D	B	D	D	D	A	A	-	A	A	A
Diethyl Triamine	B	C	A	B	B	C	B	C	A	A	A	A
Dihydroxyethyl Amine	TITAN HOSE NOT AVAILABLE											
Dihydroxyethyl Ether	A	A	A	A	B	A	B	A	A	A	A	A
Diisobutylene	D	D	D	A	B	D	D	A	A	B	A	A
Diisobutyl Ketone	D	D	B	D	D	D	A	D	-	-	A	A
Diisodecyl Adipate	D	D	A	D	D	C	A	C	A	-	A	A
Diisodecyl Phthalate	D	D	A	D	D	C	A	C	A	-	A	A
Diisooctyl Adipate	D	D	A	D	D	D	A	C	A	-	A	A
Diisooctyl Phthalate	D	D	B	D	D	D	B	B	A	-	B	A
Diisopropanol Amine	B	C	A	B	D	C	A	C	A	B	A	A
Diisopropyl Benzene	D	D	D	C	D	D	D	A	A	B	A	A
Diisopropyl Ether	D	D	D	B	D	D	D	B	A	B	A	A
Diisopropyl Ketone	D	D	D	D	D	D	A	D	A	B	C	A

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RESISTANCE RATING

A	Good Resistance:	Usually suitable for service.
B	Fair Resistance:	Chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
C	Depends on Condition:	Moderate service may be possible if chemical exposure is limited or infrequent.
D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Dilauryl Ether	D	D	D	C	D	C	D	C	A	B	A	A
Dimethylamine	TITAN HOSE NOT AVAILABLE											
Dimethyl Benzene	D	D	D	D	D	D	D	A	A	B	A	A
Dimethylaniline	D	D	D	D	D	D	C	D	B	A	B	A
Dimethylformamide (DMF)	C	C	C	D	C	C	C	D	A	A	A	A
Dimethyl Ketone (Acetone)	B	C	A	D	C	C	A	D	A	A	A	A
Dimethyl Phthalate	D	D	A	D	D	D	B	C	A	A	A	A
Dimethyl Sulfate	D	D	B	D	D	D	D	D	A	A	A	A
Dimethyl Sulfide	D	D	C	D	D	D	D	C	B	A	B	A
Dinitrobenzene	D	D	C	D	C	D	C	A	A	B	A	A
Dinitrotoluene	D	D	D	D	D	D	D	B	A	A	A	A
Diocetyl Adipate (DOA)	D	D	A	D	D	D	B	C	A	A	A	A
Diocetylamine	TITAN HOSE NOT AVAILABLE											
Diocetyl Phthalate (DOP)	D	D	B	D	D	D	B	B	A	A	A	A
Diocetyl Sebacate (DOS)	D	D	B	D	D	D	B	B	A	A	A	A
Dioxane	D	D	B	D	D	D	B	D	-	-	-	A
Dioxolane	D	D	C	D	D	D	B	C	A	B	A	A
Dipentene (Limonene)	D	D	D	C	D	D	D	A	A	B	A	A
Diphenyl (Biphenyl)	D	D	D	D	D	D	D	A	A	-	A	-
Dipropyl Ketone	D	D	B	D	D	D	B	D	A	A	A	A
Disodium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Divinyl Benzene	D	D	D	D	D	D	D	A	A	B	A	A
D.M.P. (Dimethyl Phenols)	D	D	D	D	D	D	D	D	C	A	C	A
Dodecyl Benzene	D	D	D	D	D	D	D	A	A	B	A	A
Diphenyl Oxide (Phenylether)	D	D	D	D	D	C	D	A	A	-	A	-
Dipropylamine	TITAN HOSE NOT AVAILABLE											
Dipropylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Dodecyl Toluene	D	D	D	D	D	D	D	A	A	B	A	A
Dowfume W 40, 100%	D	D	D	D	C	C	C	C	B	-	B	-
Dow-Per (Perchloroethylene)	D	D	D	C	D	D	D	A	A	B	A	A
Dowtherm Oil, A & E	D	D	D	D	D	C	D	A	A	A	A	A
Dowtherm S.R.I.	A	A	A	A	A	A	A	A	A	A	A	A
Dry Cleaning Fluids	D	D	D	C	D	D	D	A	B	-	B	-
Epichlorohydrin	D	D	C	D	D	C	B	D	B	B	B	A
Ethanol (Ethyl Alcohol)	A	A	A	A	A	A	A	C	A	A	A	A
Ethanolamine	TITAN HOSE NOT AVAILABLE											
Ethers	C	C	C	C	C	B	D	D	A	A	B	A
Ethyl Acetate	B	D	B	D	D	D	A	D	A	A	B	A
Ethyl Acetoacetate	D	D	B	D	D	D	B	D	A	A	A	A
Ethyl Acrylate	D	D	C	D	D	D	D	D	B	B	B	A
Ethyl Benzene	D	D	D	C	D	D	D	A	A	B	A	A
Ethyl Benzoate	D	D	B	B	C	C	B	C	A	-	A	-
Ethyl Butyl Alcohol	A	A	A	A	A	A	A	B	A	A	A	A
Ethyl Butyl Amine	TITAN HOSE NOT AVAILABLE											

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Ethyl Butyl Ketone	D	D	B	D	D	D	B	D	A	A	A	A
Ethyl Cellulose	B	B	B	B	B	B	B	D	A	A	A	A
Ethyl Chloride	A	B	A	D	B	B	A	B	B	B	C	A
Ethyl Dichloride	D	D	D	D	D	D	D	B	B	B	B	A
Ethylene	D	D	D	A	B	C	D	A	A			A
Ethylene Bromide	D	D	D	D	D	D	D	A	B	B	B	A
Ethylene Chloride	D	D	D	D	D	D	D	A	B	B	B	A
Ethylene Diamine	TITAN HOSE NOT AVAILABLE											
Ethylene Dibromide	D	D	D	D	D	D	D	B	B	B	B	A
Ethylene Dichloride	D	D	D	D	D	D	D	B	B	A	B	A
Ethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Ethylene Oxide	D	D	C	D	D	D	C	D	C	-	C	A
Ethylene Trichloride (Trichloroethylene)	D	D	D	C	D	D	D	A	B	B	B	A
Ethyl Ether	D	D	D	C	D	D	D	A	B	D	A	A
Ethyl Formate	D	D	B	D	D	D	C	D	A	A	A	A
Ethyl Hexanol	A	A	A	A	A	A	A	B	A	A	A	A
Ethyl Methyl Ketone	C	D	B	D	D	D	B	D	A	A	A	A
Ethyl Oxalate	A	A	A	D	D	D	B	C	A	A	A	A
Ethyl Phthalate	D	D	A	D	D	D	B	C	A	A	A	A
Ethyl Propyl Ether	D	D	D	D	D	D	D	C	A	A	A	-
Ethyl Propyl Ketone	D	D	B	D	D	D	B	D	A	B	A	A
Ethyl Silicate	C	C	A	A	A	A	A	A	A	A	A	A
Ethyl Sulfate	D	D	B	D	D	D	B	D	A	A	A	A
EX TRI (Trichlorethylene)	D	D	D	C	D	D	D	A	B	B	B	A
Fatty Acids	D	D	D	B	B	B	C	A	A	B	A	A
Ferric Bromide	A	A	A	A	A	A	A	A	A	A	A	A
Ferric Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Ferric Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Ferric Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Ferrous Acetate	D	D	A	D	D	D	B	D	A	A	A	A
Ferrous Ammonium Sulfate	A	A	A	A	A	A	A	A	A	-	A	-
Ferrous Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Ferrous Hydroxide	B	C	A	B	A	B	A	C	A	A	A	A
Ferrous Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Fish Oil	D	D	A	A	A	A	D	A	A	-	A	A
Fluoroboric Acid	A	C	A	A	B	A	A	C	A	A	A	A
Fluorine	D	D	D	D	D	D	D	D	D	D	D	B
Fluosilic Acid	B	B	A	B	B	A	B	A	A	A	A	A
Formaldehyde (Formalin)	A	A	A	A	C	A	A	A	A	A	A	A
Formamide	A	A	A	A	A	A	A	D	A	A	A	A
Formic Acid	-	-	A	B	C	A	A	D	B	A	A	A
Freon 11	B	D	D	A	B	A	D	A	A	-	A	-
Freon 12	D	D	D	B	C	D	C	B	B	D	B	-

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D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Freon 13	A	A	A	A	A	A	A	A	A	-	A	-
Freon 21	D	D	D	D	B	D	D	D	A	-	A	-
Freon 22	D	D	A	D	A	D	A	D	A	D	A	A
Freon 31	B	B	A	D	A	B	A	D	A	-	A	-
Freon 32	A	A	A	A	A	A	A	C	A	-	A	-
Freon 112	D	D	D	B	B	B	D	A	A	-	A	-
Freon 113	C	B	D	A	A	A	D	B	A	-	A	-
Freon 114	A	A	A	A	A	A	A	B	A	-	A	-
Freon 115	A	A	A	A	A	A	A	B	A	-	A	-
Freon 142b	A	A	A	A	A	A	A	D	A	-	A	-
Freon 152a	A	A	A	A	A	C	A	D	A	-	A	-
Freon 218	A	A	A	A	A	A	A	A	A	-	A	-
Freon C316	A	A	A	A	A	A	A	A	A	-	A	-
Freon C318	A	A	A	A	A	A	A	A	A	-	A	-
Freon 13B1	A	A	A	A	A	A	A	A	A	-	A	-
Freon 114B2	D	C	D	B	A	A	D	B	A	-	A	-
Freon 502	A	A	A	B	A	A	A	B	A	-	A	-
Freon TF	C	B	A	A	A	A	A	A	A	-	A	-
Freon T-WD 602	C	B	A	A	B	B	B	A	A	-	A	-
Freon TMC	B	C	B	B	B	B	B	A	A	-	A	-
Freon T-P35	A	A	A	A	A	A	A	A	A	-	A	-
Freon TA	A	A	A	A	A	A	A	C	A	-	A	-
Freon TC	D	B	A	A	A	A	B	A	A	-	A	-
Freon MF	D	B	D	A	C	B	D	A	A	-	A	-
Freon BF	D	D	D	B	B	B	D	A	A	-	A	-
Fuel Oil	D	D	D	A	A	B	D	A	A	B	B	A
Fuel, ASTM A	D	D	D	A	-	C	D	A	A	-	-	A
Fuel, ASTM B	D	D	D	A	-	C	D	A	A	-	-	A
Fuel, ASTM C	D	D	D	B	C	D	D	A	B	-	-	A
Fumaric Acid	A	A	D	A	B	B	D	A	A	A	A	A
Furan	D	D	C	D	D	D	C	D	A	A	A	A
Furfural	D	C	A	D	C	B	C	D	A	A	A	A
Furfuryl Alcohol	D	D	C	D	C	C	C	D	A	A	A	A
Gallic Acid	A	A	B	B	B	B	B	B	A	A	A	A
Gasoline, Reg	D	D	D	A	A	C	D	A	A	B	A	A
Gasoline, Hi-Test	D	D	D	A	D	D	D	A	A	B	B	A
Gasoline, Lead Free	D	D	D	A	D	D	D	A	A	B	B	A
Gelatin	A	A	A	A	A	A	A	A	A	A	A	A
Gluconic Acid	D	D	C	C	C	B	C	A	A	A	A	A
Glucose	A	A	A	A	A	A	A	A	A	A	A	A
Glue	B	B	B	A	A	A	A	C	A	A	A	A
Glycerine (Glycerol)	A	A	A	A	A	A	A	A	A	A	A	A
Glycois	A	A	A	A	A	A	A	A	A	A	A	A
Grease	D	D	D	A	B	C	D	A	A	A	A	A
Green Sulfate Liquor	-	-	A	-	-	-	A	-	-	A	A	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Halowax oil	D	D	D	D	D	D	D	A	A	A	A	A
Heptachlor in Petroleum Solvents	D	D	D	B	B	D	D	A	A	B	A	A
Heptachlor in Petroleum Solvents, Water Spray	D	D	D	B	B	D	D	A	A	-	A	-
Heptanal (Heptaldehyde)	D	D	D	D	D	D	B	D	A	-	A	A
Heptane	D	D	D	A	A	B	D	A	A	B	A	A
Heptane Carboxylic Acid	D	D	C	C	B	B	C	A	A	A	A	A
Hexaldehyde	D	D	B	D	B	C	B	D	A	B	A	A
Hexane	D	D	D	A	A	C	D	A	A	B	A	A
Hexene	D	D	D	B	B	C	D	A	A	-	A	A
Hexanol (Hexyl Alcohol)	A	A	A	A	A	A	A	A	A	A	A	A
Hexylamine	TITAN HOSE NOT AVAILABLE											
Hexylene	D	D	D	A	B	D	C	A	B	-	B	A
Hexylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Hexyl Methyl Ketone	D	D	B	D	D	D	B	D	A	A	A	A
Hi-Tri (Trichloroethylene)	D	D	D	C	D	D	D	A	B	B	B	A
Hydraulic Fluid (Petroleum)	D	D	D	A	B	B	D	A	A	A	A	A
Hydraulic Fluid (Phosphate Ester Base)	D	D	A	D	D	D	A	D	A	A	A	A
Hydraulic Fluid (Poly Alkylene Glycol Base)	B	B	A	A	A	A	A	A	A	-	A	-
Hydrobromic Acid	C	D	A	C	C	A	A	A	A	A	A	A
Hydrochloric Acid, 5%	B	B	B	D	D	A	A	A	A	A	A	A
Hydrochloric Acid, 15%	B	B	B	D	D	A	A	A	A	A	A	A
Hydrochloric Acid, 37%	-	-	-	-	C	A	A	A	A	A	A	A
Hydrocyanic Acid	B	B	C	B	C	A	C	A	A	A	A	A
Hydrofluoric Acid	D	D	C	D	D	A	C	A	A	A	B	A
Hydrofluosilic Acid	A	B	A	B	B	A	A	A	A	A	A	A
Hydrogen Gas	-	-	-	-	-	-	-	-	-	-	-	-
Hydrogen Peroxide, 3%	D	D	C	C	C	C	A	A	A	A	A	A
Hydrogen Peroxide, 10%	D	D	C	D	C	C	A	A	A	A	A	A
Hydrogen Peroxide, 30%	D	D	D	D	D	D	C	A	A	A	A	A
Hydrogen Peroxide, 90%	D	D	D	D	D	D	C	B	B	-	B	A
Hydrogen Sulfide	-	-	-	-	-	-	-	-	-	-	-	-
Hydroquinone	B	B	B	D	D	C	B	D	A	A	A	A
Hypochlorous Acid	B	B	B	D	B	A	B	A	A	-	A	-
Ink Oil (Linseed Oil Base)	D	D	B	B	B	B	B	A	A	B	A	A
Insulating Oil	D	D	D	A	B	D	D	A	A	A	A	A
Iodine	D	D	D	D	D	C	D	C	A	A	A	A
Iron Acetate	D	D	A	D	D	D	B	D	A	A	A	A
Iron Hydroxide	C	C	A	B	A	B	B	C	A	A	A	A
Iron Salts	A	A	A	A	A	A	A	A	A	A	A	A
Iron Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Iron Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Isomyl Acetate	D	D	A	D	D	D	B	D	A	B	A	A

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	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Isoamyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A
Isoamyl Bromide	D	D	D	D	D	D	D	B	B	-	B	A
Isoamyl Butyrate	D	D	C	D	D	D	C	D	B	B	B	A
Isoamyl Chloride	D	D	C	D	D	D	D	B	B	B	B	A
Isoamyl Ether	D	D	D	D	D	D	D	D	A	-	A	A
Isoamyl Phthalate	D	D	A	D	D	D	B	C	A	-	A	A
Isobutane	USE LPG HOSE ONLY											
Isobutanol (Isobutyl Alcohol)	A	A	A	B	A	A	A	B	A	A	A	A
Isobutyl Acetate	D	D	A	D	D	D	B	D	A	B	A	A
Isobutyl Aldehyde	C	D	B	D	D	D	B	D	A	-	A	A
Isobutyl Amine	B	C	B	D	D	C	B	D	A	-	A	A
Isobutyl Bromide	D	D	D	D	D	D	B	B	-	B	A	A
Isobutyl Carbinol	A	A	A	A	B	A	A	B	A	-	A	A
Isobutyl Chloride	D	D	D	D	D	D	B	B	B	B	B	A
Isobutylene	D	D	D	A	D	D	D	A	A	B	A	A
Isobutyl Ether	D	D	D	D	D	D	D	D	A	-	A	A
Isocyanates	C	D	B	D	D	C	B	C	B	B	B	A
Isocetane	D	D	D	A	A	B	D	A	A	B	A	A
Isopentane	D	D	D	A	A	D	D	A	B	B	B	A
Isopropyl Amine	B	C	A	B	A	C	B	D	A	B	A	A
Isopropyl Acetate	D	D	A	D	D	C	B	D	A	A	A	A
Isopropyl Alcohol (iso-propanol)	A	A	A	B	A	A	A	B	A	A	A	A
Isopropyl Amine	B	D	B	C	A	C	B	D	A	B	A	A
Isopropyl Benzene	D	D	D	D	D	D	D	A	A	B	A	A
Isopropyl Chloride	D	D	D	D	D	D	D	B	B	-	B	A
Isopropyl Ether	D	D	D	C	D	C	D	D	A	A	A	A
Isopropyl Toluene	D	D	D	D	D	D	D	A	A	-	A	A
Jet Fuels (JP1-JP6)	D	D	D	A	B	C	D	A	A	A	A	A
Kerosene	D	D	D	A	B	C	D	A	A	A	B	A
Ketones	D	D	B	D	D	D	A	D	A	A	A	A
Lactic Acid	C	C	C	C	C	A	C	A	A	A	A	A
Laquers	D	D	C	D	D	D	D	D	B	A	B	A
Lacquer Solvents	D	D	C	D	D	D	D	D	B	A	B	A
Lard	D	D	D	A	B	D	C	A	A	A	A	A
Lauryl Alcohol	A	A	A	A	A	A	A	B	A	A	A	A
Lead Acetate	D	D	A	C	C	D	B	C	A	A	A	A
Lead Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Lead Sulfamate	B	B	A	B	A	B	A	A	A	-	A	-
Lead Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Ligroin	D	D	D	A	A	D	D	A	A	B	A	A
Lime Water	D	D	A	C	A	A	A	A	A	-	A	-
Linseed Oil	C	D	A	A	B	A	A	A	A	-	A	A
Lindol (Tricresyl Phosphate)	D	D	A	D	D	B	A	A	A	-	A	-
Liquid Soap	A	A	A	A	A	A	A	A	A	A	A	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Liquid Petroleum Gas	D	D	D	A	B	B	D	A	A	-	-	A
Lubricating Oils	D	D	D	A	B	C	D	A	-	-	-	A
Lye (Sodium Hydroxide)	A	B	A	B	A	A	A	D	A	-	A	-
Magnesium Acetate	D	D	A	D	D	D	B	D	A	A	A	A
Magnesium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Magnesium Chloride	A	A	A	A	A	A	A	A	A	-	A	A
Magnesium Hydrate	A	B	A	B	A	B	A	B	A	A	A	A
Magnesium Hydroxide	A	B	A	B	B	A	A	A	A	-	A	A
Magnesium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Magnesium Sulfate	A	A	A	A	A	A	A	A	A	-	A	A
Malathion 50 in Aromatic Solvents	D	D	D	C	C	D	D	A	A	A	A	A
Malathion 50 in Aromatic Solvents, Water Spray	D	D	D	C	C	D	D	A	A	A	A	A
Maleic Acid	D	D	C	D	C	D	C	A	B	A	B	A
Maleic Anhydride	D	D	C	D	C	D	C	A	A	-	A	A
Malic Acid	A	B	D	B	C	B	D	A	A	A	A	A
Manganese Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Manganese Sulfide	C	A	A	A	B	A	B	A	A	A	A	A
Manganese Sulfite	C	A	A	A	B	A	B	A	A	A	A	A
Mercuric Chloride	B	B	A	B	C	A	A	A	A	A	A	A
Mercury	A	A	A	A	A	A	A	A	A	A	A	A
Methane	D	D	D	A	B	B	D	A	A	-	A	A
Methyl Acetate	C	D	B	D	D	D	B	D	A	B	A	A
Methyl Acrylate	C	D	B	D	C	D	B	D	A	A	A	A
Methacrylic Acid	D	D	B	D	B	C	B	D	A	-	A	-
Methyl Alcohol (Methanol)	A	A	A	A	A	A	A	C	A	A	A	A
Methyl Benzene (Toluene)	D	D	D	D	D	D	D	A	A	B	A	A
Methyl Bromide	D	D	D	D	D	D	D	B	B	A	C	A
Methyl Butyl Ketone	D	D	B	D	D	D	B	D	A	A	A	A
Methyl Cellosolve	D	D	B	C	B	C	B	D	A	A	A	A
Methyl Chloride	C	C	C	C	C	D	C	A	B	B	C	A
Methyl Cyclohexane	D	D	D	D	D	D	D	B	B	-	B	A
Methylene Bromide	D	D	D	D	D	D	D	B	B	A	C	A
Methylene Chloride	D	D	D	D	D	D	D	B	A	A	B	A
Methyl Ethyl Ketone(MEK)	D	D	B	D	D	C	A	D	A	B	A	A
Methyl Formate	C	C	B	D	B	C	B	C	B	A	B	A
Methyl Hexanol	A	A	A	A	A	A	A	B	A	A	A	A
Methyl Hexyl Ketone	D	D	B	D	D	D	B	D	A	B	A	A
Methyl Isobutyl Carbinol	B	C	A	B	B	B	A	B	A	A	A	A
Methyl Isobutyl Ketone (MIBK)	D	D	B	D	D	D	A	D	A	B	A	A
Methyl Isopropyl Ketone	D	D	B	D	D	C	C	D	A	A	A	A
Methyl Propyl Ether	D	D	D	D	D	D	D	D	A	B	A	A
Methyl Propyl Ketone	D	D	B	D	D	D	B	D	A	B	A	A
Methyl Methacrylate	D	D	D	D	D	B	D	D	B	B	B	A

These charts are offered as a guideline only. If there is any question about the resistance of a listed elastomer, please contact Titan's Technical Team at 800-242-HOSE (4673). All ratings are based on material at ambient temperature (70°F).

RESISTANCE RATING

A	Good Resistance:	Usually suitable for service.
B	Fair Resistance:	Chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
C	Depends on Condition:	Moderate service may be possible if chemical exposure is limited or infrequent.
D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Methyl Salicylate	D	D	B	D	D	D	B	C	B	A	B	A
Methyl tert-Butyl Ether (MTBE)	D	D	D	D	D	D	D	D	A	B	D	D
Mineral Oil	D	C	D	A	B	D	D	A	-	-	-	A
Mineral Spirits	D	D	D	A	B	D	D	A	A	A	A	A
Monochlorobenzene	D	D	D	D	D	D	D	A	A	B	A	A
Monochlorodifluoromethane (Freon 22)	D	D	A	D	A	D	A	D	A	-	A	A
Monoethanolamine	TITAN HOSE NOT AVAILABLE											
Monomethylether	B	B	A	A	A	C	A	C	A	-	A	-
Monovinyl Acetate	D	D	B	D	D	C	C	A	A	-	A	-
Motor Oil	D	D	D	A	A	D	D	A	A	A	A	A
Muriatic Acid	-	-	-	-	C	A	A	A	A	A	A	A
Naphtha	D	D	D	A	B	D	D	A	A	A	A	A
Napthalene	D	D	D	D	D	D	D	A	A	-	A	A
Napthenic Acid	D	D	D	C	D	D	D	A	A	A	A	A
Natural Gas	CONTACT TITAN TECHNICAL											
Neatsfoot Oil	D	D	B	A	B	B	B	A	A	A	A	A
Neu-Tri (Trichloroethylene)	D	D	D	C	D	D	D	A	B	B	B	A
Nickel Acetate	D	D	A	D	D	D	B	D	A	A	A	A
Nickel Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Nickel Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Nickel Plating Solution	A	D	B	B	C	B	B	A	A	A	A	A
Nickel Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Niter Cake	A	A	A	A	A	A	A	A	A	A	A	A
Nitric Acid, 10%	D	D	C	D	C	A	C	C	A	A	A	A
Nitric Acid, 20%	D	D	B	D	D	B	C	A	A	A	A	A
Nitric Acid, 30%	D	D	B	D	D	C	C	A	B	A	B	A
Nitric Acid, 30-70%	D	D	C	D	D	C	D	C	B	C	D	A
Nitric Acid, Red Fuming	D	D	D	D	D	D	D	D	-	D	A	A
Nitrobenzene	D	D	D	D	D	D	D	B	A	A	B	A
Nitrogen Gas	A	A	A	A	A	A	A	A	A	A	A	A
Nitrogen Tetraoxide	D	D	D	D	D	D	D	D	-	D	A	A
Nitromethane	B	B	B	D	C	C	B	D	A	-	A	A
Nitropropane	C	C	A	D	C	C	B	D	A	A	A	A
Nitrous Oxide	A	A	A	A	A	A	A	A	A	A	A	A
Octadecanoic Acid	D	D	B	A	B	D	C	C	A	A	A	A
Octane	D	D	D	A	B	D	D	A	B	B	B	A
Octanol (Octyl Alcohol)	B	B	B	B	A	B	B	A	A	A	A	A
Octyl Acetate	D	D	A	D	D	D	B	D	A	B	A	A
Octyl Amine	CONTACT TITAN TECHNICAL											
Octyl Carbinol	A	A	A	A	A	A	A	B	A	A	A	A
Octylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Oil, Petroleum	D	D	D	A	A	C	D	A	A	A	A	A
Oil, ASTM #1	D	D	D	A	A	B	D	A	-	-	-	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Oil, ASTM #2	D	D	D	A	A	C	D	A	-	-	-	A
Oil, ASTM #3	D	D	D	A	B	C	D	A	-	-	-	A
Oleic Acid	D	B	B	B	C	B	B	C	A	A	A	A
Oleum (Fuming Sulfuric Acid)	D	D	D	D	D	D	D	D	D	D	D	A
Olive Oil (Non FDA)	D	D	B	A	B	B	B	A	A	A	A	A
Orthodichlorobenzene	D	D	D	D	D	D	D	A	B	B	B	A
Oxalic Acid	B	C	A	B	B	A	A	A	A	A	A	A
Oxygen, Cold	B	C	A	C	A	B	A	A	A	A	A	A
Oxygen, Hot	B	C	A	C	A	D	A	A	A	-	A	A
Ozone	D	C	B	D	B	A	A	A	A	B	A	A
Paint Thinner (Duco)	D	D	D	D	D	D	D	C	A	B	A	A
Palmitic Acid (Hexadecanoic Acid)	D	B	B	A	A	B	B	A	A	A	A	A
Palm Oil	D	D	A	A	B	B	B	A	A	A	A	A
Papermaker's Alum	A	A	A	A	A	A	A	A	A	A	A	A
Paradichlorobenzene	D	D	D	D	D	D	D	A	B	-	B	-
Paraffin	D	D	D	A	A	D	D	A	D	A	D	A
Paraformaldehyde	D	D	B	B	B	B	B	C	A	-	A	A
Peanut Oil	D	D	C	A	B	B	D	A	A	A	A	A
Pentane	D	D	D	A	A	B	D	A	A	-	A	A
Perchloroethylene	D	D	D	C	D	D	D	A	A	B	C	A
Perchloric Acid	B	B	B	D	A	A	B	A	A	B	A	A
Petrolatum	D	D	D	A	A	C	D	A	A	-	A	-
Petroleum, Crude	D	D	D	A	B	C	D	A	A	A	D	A
Petroleum Ether (Naphtha)	D	D	D	A	A	D	D	A	A	A	A	A
Petroleum Oils	D	D	D	A	A	C	D	A	A	A	A	A
Phenol	C	C	B	D	C	C	C	A	A	B	A	A
Phenol Sulfonic Acid	D	D	C	D	C	D	C	A	B	B	B	A
Phenyl Chloride	D	D	D	D	D	D	D	A	A	B	A	A
Phenylhydrazine	C	D	B	D	D	C	C	A	-	A	-	-
Phorone	D	D	A	D	D	D	B	C	A	A	A	A
Phosphate Esters	D	D	A	D	D	D	A	C	A	-	A	-
Phosphoric Acid, 10%	A	A	A	A	A	A	A	A	A	A	A	A
Phosphoric Acid, 10-85%	C	C	A	C	B	A	A	A	A	B	A	A
Phosphorous Trichloride	D	D	A	D	D	D	A	A	A	-	A	-
Pickling Solution	C	C	C	C	C	C	C	C	B	A	B	A
Picric Acid, Molten	C	C	C	C	C	B	C	C	D	B	D	A
Picric Acid, Water Soln.	A	C	A	B	B	A	B	C	A	B	A	A
Pinene	D	D	D	A	D	D	D	A	A	A	A	A
Pine Oil	D	D	D	C	C	D	D	B	A	A	A	A
Piperidine	D	D	D	D	D	D	D	D	B	C	B	A
Pitch	D	D	D	B	B	C	D	C	A	B	A	A
Plating Solution, Chrome	D	D	A	B	B	C	A	B	A	A	A	A
Plating Solution, Others	A	A	A	B	B	C	A	B	A	-	A	-
Polyvinyl Acetate Emulsion (PVA)	C	C	A	C	B	B	A	C	A	-	A	A

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RESISTANCE RATING		
A	Good Resistance:	Usually suitable for service.
B	Fair Resistance:	Chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
C	Depends on Condition:	Moderate service may be possible if chemical exposure is limited or infrequent.
D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Polyethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Polypropylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Bisulfate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Bisulfite	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Chromate	D	D	A	D	C	C	B	A	B	B	A	A
Potassium Cyanide	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Dichromate	D	D	A	D	B	C	B	A	C	A	A	A
Potassium Hydrate	A	B	A	B	B	B	A	C	A	A	A	A
Potassium Hydroxide	B	B	A	C	C	A	A	C	A	A	A	A
Potassium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Permanganate	D	D	A	D	D	D	A	A	A	A	A	A
Potassium Silicate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Producer Gas	D	D	D	A	B	B	D	A	A	-	A	-
Propane Gas	USE BUTANE HOSE ONLY											
Propanediol	A	A	A	A	B	A	A	A	A	A	A	A
Propyl Acetate	D	D	B	D	D	D	B	D	A	A	A	A
Propyl Alcohol (Propanol)	A	A	A	A	A	A	A	A	A	A	A	A
Propyl Aldehyde	C	D	B	D	D	D	B	D	A	B	A	A
Propyl Chloride	D	D	C	D	C	D	C	B	B	-	B	A
Propylene Diamine	TITAN HOSE NOT AVAILABLE											
Propylene Dichloride	D	D	D	D	D	D	D	B	B	-	B	A
Propylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Pydraul Hydraulic Fluids	D	D	B	D	D	D	B	C	B	A	B	A
Pyranol	D	D	D	C	D	D	D	A	A	-	A	-
Pyridine	D	D	B	D	D	D	B	D	A	B	A	A
Pyroligneous Acid	C	C	B	C	B	B	B	A	A	-	A	-
Pyrrole	C	B	B	D	D	D	C	C	A	-	A	-
Rape Seed Oil	D	D	A	B	B	B	B	A	B	A	B	A
Red Oil (Crude Oleic Acid)	D	D	B	B	B	B	B	B	A	B	A	A
Richfield A Weed Killer, 100%	D	D	D	D	D	D	D	C	B	A	B	A
Richfield B Weed Killer, 33%	D	D	B	B	B	C	D	C	B	A	B	A
Rosin Oil	D	D	D	A	A	B	D	A	A	-	A	-
Rotenone and Water	A	A	A	A	A	A	A	A	A	-	A	-
Rum	FDA TUBE REQUIRED											
Sal Ammoniac (Ammonium Chloride)	A	A	A	A	A	A	A	A	A	-	A	-
Salicylic Acid	A	B	A	D	D	A	A	A	A	A	A	A
Salt Water (Sea Water)	A	A	A	A	A	A	A	A	A	A	A	A
Sewage	C	C	C	A	B	A	C	A	A	A	A	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Silicate of Soda (Sodium Silicate)	A	A	A	A	A	A	A	A	A	A	A	A
Silicate Esters	D	D	D	B	A	A	D	A	A	-	A	-
Silicone Greases	A	A	A	A	A	A	A	A	A	B	A	A
Silicone Oils	-	-	A	A	A	A	A	A	A	A	A	A
Silver Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Skelly Solvent	D	D	D	A	B	C	D	A	A	-	A	-
Skydrol Hydraulic Fluids	D	D	A	D	D	D	A	D	A	A	A	A
Soap Solutions	A	A	A	A	B	A	A	A	A	A	A	A
Soda Ash (sodium Carbonate)	A	A	A	A	A	A	A	A	A	A	A	A
Soda, Caustic (Sodium Hydroxide)	A	B	A	B	A	A	A	D	A	A	A	A
Soda, Lime	A	B	A	B	B	B	A	C	A	A	A	A
Soda Niter (Sodium Nitrate)	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Acetate	D	D	A	D	D	D	B	D	A	A	A	A
Sodium Aluminate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bisulfate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bisulfite	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Borate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Chromate	D	D	A	D	C	C	B	C	B	-	B	A
Sodium Cyanide	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Dichromate	D	D	A	D	C	C	B	C	A	A	A	A
Sodium Fluoride	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Hydroxide	-	B	A	C	C	C	A	C	A	A	A	A
Sodium Hypochlorite	D	D	A	D	D	B	A	A	B	B	C	A
Sodium Metaphosphate	A	A	A	A	C	B	A	A	A	A	A	A
Sodium Nitrate	C	C	A	C	C	A	A	A	A	A	A	A
Sodium Nitrite	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Perborate	C	C	A	C	C	A	A	A	A	A	B	A
Sodium Peroxide	C	C	A	C	C	A	A	A	A	B	C	A
Sodium Phosphate	A	B	A	B	C	A	A	A	A	A	A	A
Sodium Silicate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Thiosulfate	A	A	A	A	A	A	A	A	A	A	A	A
Soybean Oil	D	C	A	A	B	A	A	A	A	A	A	A
Stannic Chloride	A	A	B	A	A	A	B	A	A	A	A	A
Stannic Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Stannous Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Stannous Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Steam, under 300 degrees F	TITAN HOSE NOT AVAILABLE											
Steam, over 300 degrees F	TITAN HOSE NOT AVAILABLE											
Stearic Acid	D	D	B	B	C	C	B	A	A	A	A	A

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RESISTANCE RATING		
A	Good Resistance:	Usually suitable for service.
B	Fair Resistance:	Chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
C	Depends on Condition:	Moderate service may be possible if chemical exposure is limited or infrequent.
D	Not Recommended:	Unsuitable for service.

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Stoddards Solvent	D	D	D	A	C	D	D	A	B	A	A	A
Styrene	D	D	D	D	D	D	D	A	-	-	-	A
Sugar Sols. (Sucrose) Non F.D.A.	A	A	A	A	A	A	A	A	A	A	A	A
Sulfamic Acid	C	C	A	B	B	B	A	C	A	A	A	A
Sulfite Liquors	B	B	A	B	B	A	B	A	A	-	A	A
Sulfonic Acid	D	D	D	D	C	C	D	D	B	-	B	A
Sulfur (Molten)	B	B	A	B	A	A	A	A	C	-	A	A
Sulfur Chloride	D	D	D	C	C	A	D	A	A	B	B	A
Sulfur Dioxide	C	C	C	C	C	A	C	A	A	-	A	A
Sulfur Hexafluoride	A	A	A	A	A	A	A	A	A	A	A	A
Sulfur Trioxide	D	C	C	C	C	B	C	A	B	B	D	A
Sulfuric Acid, 25%	B	B	B	B	A	A	-	A	A	A	A	A
Sulfuric Acid, 25-50%	B	D	A	D	C	A	-	A	A	A	A	A
Sulfuric Acid, Fuming	D	D	D	D	D	D	D	A	D	D	D	A
Sulfurous Acid	C	C	C	C	C	A	C	A	A	A	A	A
Tall Oil	D	D	D	A	B	B	D	A	A	B	A	A
Tallow	D	D	D	A	A	D	D	A	A	A	A	A
Tannic Acid	A	C	A	C	A	A	A	A	A	A	A	A
Tar	D	D	D	C	C	C	D	B	D	A	D	A
Tartaric Acid	A	C	B	C	C	A	B	A	A	A	A	A
Terpineol	D	D	C	D	D	D	C	A	B	A	B	A
Tertiary Butyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A
Tetrachlorobenzene	D	D	D	D	D	D	B	B	-	B	A	A
Tetrachloroethane	D	D	D	D	D	D	A	B	-	B	A	A
Tetrachloroethylene	D	D	D	D	D	D	A	B	B	B	B	A
Tetraethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Tetrachloromethane	D	D	D	C	D	D	A	B	B	B	B	A
Tetrachloronaphthalene	D	D	D	D	D	D	B	B	-	B	A	A
Tetraethyl Lead	D	D	D	B	C	D	D	A	A	B	A	A
Tetrahydrofuran (THF)	D	D	D	D	D	D	D	A	-	A	A	A
Thionyl Chloride	D	D	D	D	D	D	D	B	A	-	A	A
Tin Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Tin Tetrachloride	A	A	A	A	A	A	A	A	A	A	A	A
Titanium Tetrachloride	D	D	D	B	C	C	C	A	A	B	A	A
Toluene (Toluol)	D	D	D	C	D	D	D	A	A	B	C	A
Toluene Diisocyanate (TDI)	C	C	A	C	D	D	A	B	A	-	A	A
Toxaphene	D	D	D	B	B	D	D	A	A	-	A	-
Transformer Oils (Petroleum Base)	D	D	D	A	B	B	D	A	A	A	A	A
Transformer Oils (Chlorinated Phenyl Base Askerels)	D	D	D	D	D	D	D	A	B	B	B	A
Transmission Fluids - A	D	D	D	B	C	D	D	A	A	A	A	A
Transmission Fluids - B	D	D	D	C	D	D	D	A	A	-	A	-
Tricetin	A	B	A	B	B	B	A	D	A	-	A	-
Tributyl Amine	TITAN HOSE NOT AVAILABLE											
Tributyl Phosphate	D	D	B	D	D	D	B	D	A	A	A	A
Trichlorobenzene	D	D	D	D	D	D	D	B	B	B	B	A

	Natural Rubber	SBR	Butyl	Nitrile	Neoprene	Hypalon®	EPDM	FKM / Viton®	X-Linked Polyethylene	Modified X-Link	UHMWPE	FEP / Teflon®
Trichloroethane	D	D	D	D	D	D	D	A	A	B	A	A
Trichloroethylene	D	D	D	D	D	D	D	A	A	A	B	A
Trichloropropane	D	D	D	D	D	D	D	A	A	-	A	A
Tricresyl Phosphate (TCP)	D	D	A	D	D	D	B	B	A	-	A	A
Triethanolamine (TEA)	TITAN HOSE NOT AVAILABLE											
Triethylamine	TITAN HOSE NOT AVAILABLE											
Triethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Trinitrotoluene (TNT)	D	D	D	D	B	B	D	B	D	-	D	-
Triphenyl Phosphate	D	D	A	D	C	C	B	C	A	-	A	A
Trisodium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Tung Oil	D	D	C	A	B	B	D	A	A	B	A	A
Turbine Oil	D	D	D	B	B	B	D	A	A	-	A	-
Turpentine	D	D	D	B	D	D	D	A	A	-	B	A
2,4D with 10% Fuel Oil	D	D	D	A	A	D	D	A	A	-	A	-
Ucon Hydrolube Oils	D	D	A	A	B	D	A	A	A	A	A	A
Undecanol	A	A	A	A	A	A	A	B	A	A	A	A
Unsymmetrical Dimethyl-Hydrazine (UDMH)	D	D	A	D	D	A	A	D	C	-	C	-
Uran	B	C	B	B	B	A	B	C	A	-	A	-
Urea	TITAN HOSE NOT AVAILABLE											
Varnish	D	D	D	B	B	C	D	A	A	B	A	A
Vegetable Oils	D	D	A	A	B	B	A	A	A	-	A	A
Versilube	C	C	A	A	C	A	A	A	A	-	A	A
Vinegar	C	C	A	C	C	A	A	A	A	A	A	A
Vinyl Acetate	D	D	A	D	D	D	B	A	B	A	A	A
Vinyl Benzene	D	D	D	D	D	D	D	A	B	-	B	A
Vinyl Chloride (Monomer)	C	D	D	D	D	D	A	A	B	A	A	A
Vinyl Ether	D	D	D	D	D	C	C	D	A	-	A	-
Vinyl Toluene	D	D	D	D	D	D	D	A	B	-	B	A
Vinyl Trichloride	D	D	D	D	D	D	D	A	A	B	A	A
V.M. & P. Naptha	D	D	D	A	A	D	D	A	A	A	A	A
Water, Fresh (non F.D.A.)	A	A	A	A	C	A	A	A	A	A	A	A
Water, Salt	A	B	A	B	A	B	A	A	A	A	A	A
Whiskey, Wines	FDA TUBE REQUIRED											
White Liquor	A	A	B	A	A	A	C	A	A	-	A	-
White Oil	D	D	D	A	B	D	D	A	A	-	A	A
Wood Alcohol (Methanol)	A	A	A	A	A	A	A	D	A	A	A	A
Xylene (Xy101)	D	D	D	C	D	D	D	A	A	-	C	A
Xylidine	D	D	D	D	D	D	D	C	B	B	B	A
Zeolites	B	A	C	C	A	A	A	A	A	-	A	-
Zinc Acetate	C	D	A	C	C	C	B	D	A	A	A	A
Zinc Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Zinc Chloride	C	C	A	C	C	A	A	A	A	A	A	A
Zinc Chromate	A	C	A	A	A	C	A	A	B	A	B	A
Zinc Sulfate	A	A	A	A	A	A	A	A	A	A	A	A

These charts are offered as a guideline only. If there is any question about the resistance of a listed elastomer, please contact Titan's Technical Team at 800-242-HOSE (4673). All ratings are based on material at ambient temperature (70°F).