Chemical Resistance Table

The chemical compatibility in this chart is based on results from laboratory testing and reflect the relative capabilities of various formulations to withstand specific chemicals.

The ratings do not reflect the extent to which extraction may occur or the extent to which fluids may undergo any physical change as a result of coming into contact with the product.

Flexseal Ltd make no representation or warranty with respect to the suitability of any fluid to become contaminated or undergo changes in properties or composition as a result of possible extraction of product ingredients by the fluid to be transmitted.

All ratings are based on room temperature (22°C / 73°F) and chemical resistance will be affected by elevated temperatures.

It is the user's responsibility to ensure the suitability and safety of products for all intended uses including establishing the compatibility of any fluids with the product through which it is transmitted.

E (Excellent)	Little or No Effect
G (Good)	Moderate Effect
F (Fair)	Pronounced Effect
P (Poor)	Not Recommended
U Unknown	No Data

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
A			
Acetaldehyde	P	E	G
Acetamide	E	E	P
Acetic Acid, 30%	G	E	G
Acetic Acid, Glacial	F	E	P
Acetone	P	E	P
Acetophenone	P	E	U
Acetyl Chloride	P	P	U
Acetylene	E	E	G
Acrylonitrile	P	P	U
Aluminum Acetate (aqueous solution)	G	E	U
Aluminum Chloride (aqueous solution)	E	E	E
Aluminum Fluoride (aqueous solution)	E	E	E
Aluminum Nitrate (aqueous solution)	E	E	E

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Aluminum Phosphate (aqueous solution)	E	E	U
Aluminum Sulphate (aqueous solution)	E	E	E
Ammonia Gas (cold)	E	E	E
Ammonia Gas (hot)	P	G	E
Ammonium Carbonate (aqueous solution)	P	E	E
Ammonium Chloride (aqueous solution)	E	E	E
Ammonium Hydroxide (concentrated)	P	E	E
Ammonium Nitrate (aqueous solution)	E	E	E
Ammonium Nitrite (aqueous solution)	E	E	U
Ammonium Persulphate (aqueous solution)	P	E	E
Ammonium Phosphate (aqueous solution)	E	E	E
Ammonium Sulphate (aqueous solution)	E	E	E
Amyl Acetate	P	F	P
Amyl Alcohol	G	E	P
Amyl Borate	E	P	U
Amyl Chloronapthalene	P	P	U
Amyl Napthalene	P	P	U
Aniline	P	E	P
Aniline Dyes	P	E	U
Aniline Hydrochloride	G	G	P
Animal Fats	E	G	P
Ansul Ether (Anesthetics)	F	F	U
Aqua Regia	P	F	P
Arsenic Acid	E	E	E
Arsenic Trichloride (aqueous solution)	E	F	U
Asphalt	G	P	U
B			
Barium Chloride (aqueous solution)	E	E	E
Barium Hydroxide (aqueous solution)	E	E	E
Barium Sulphate (aqueous solution)	E	E	E
Barium Sulphide (aqueous solution)	E	E	E
Beer	E	E	E
Beet Sugar Liquors	E	E	E
Benzaldehyde	P	E	P
Benzene	P	P	P
Benzene Sulphonic Acid	P	F	U
Benzoic Acid	F	F	E
Benzoyl Chloride	P	P	U
Benzyl Alcohol	P	E	U
Benzyl Benzoate	P	G	U

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Benzyl Chloride	P	P	U
Blast Furnace Gas	P	P	U
Bleach Solutions	P	E	G
Borax	G	E	E
Bordeaux Mixture	G	E	U
Boric Acid	E	E	E
Brine	E	E	U
Bromine Trifluoride	P	P	U
Bromine Water	P	G	P
Bromine (anhydrous)	P	P	P
Bromobenzene	P	P	F
Butadiene	P	F	P
Butane	E	P	P
Butter	E	E	P
Butyl Acetate	P	F	P
Butyl Acrylate	P	P	U
Butyl Alcohol	E	G	G
Butyl Amine	F	G	U
Butyl Benzoate	P	G	U
Butyl Oleate	P	G	P
Butyl Stearate	G	F	F
C			
Calcium Acetate (aqueous solution)	G	E	U
Calcium Chloride (aqueous solution)	E	E	E
Calcium Hydroxide (aqueous solution)	E	E	E
Calcium Hypochlorite (aqueous solution)	G	E	G
Calcium Nitrate (aqueous solution)	E	E	E
Calcium Sulphide (aqueous solution)	E	E	U
Cane Sugar Liquors	E	E	U
Carbolic Acid	P	G	U
Carbon Dioxide	E	G	E
Carbon Monoxide	E	E	E
Carbon Tetrachloride	F	P	P
Carbonic Acid	G	E	E
Castor Oil	E	G	U
Cellosolve	P	G	U
Cellosolve Acetate	P	G	U
Chlorine (Dry)	P	P	P
Chlorine (Wet)	P	F	P
Chlorine Dioxide	P	F	U

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Chlorine Trifluoride	P	P	U
Chloroacetic Acid	P	E	F
Chloroacetone	P	E	U
Chlorobenzene	P	P	P
Chlorobromomethane	P	G	U
Chloroform	P	P	P
Chlorotoluene	P	P	U
Chromic Acid	P	F	P
Citric Acid	E	E	E
Coconut Oil	E	F	P
Cod Liver Oil	E	E	P
Coke Oven Gas	P	P	U
Copper Acetate (aqueous solution)	G	E	U
Copper Chloride (aqueous solution)	E	E	E
Copper Cyanide (aqueous solution)	E	E	E
Copper Sulphate (aqueous solution)	E	E	E
Cottonseed Oil	E	G	F
Creosote (Coal Tar)	E	P	U
Cyclohexane	E	P	G
Cyclohexanol	F	F	P
Cyclohexanone	P	G	P
D			
Decalin	P	P	E
Decane	E	P	U
Detergent Solutions	E	E	E
Diacetone	P	E	U
Diacetone Alcohol	P	E	U
Dibenzyl Ether	P	G	U
Dibutyl Ether	P	F	U
Dibutyl Phthalate	P	G	P
Dibutyl Sebacate	P	G	P
Dicyclohexylamine	F	P	U
Diesel Oil	E	P	P
Diethyl Benzene	P	P	P
Diethylamine	G	G	P
Diethylene Glycol	E	E	U
Diisobutylene	G	P	U
Diisopropyl Benzene	P	P	U
Diisopropyl Ketone	P	E	U
Dimethyl Formamide	G	G	F

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Dimethyl Phthalate	P	G	P
Dinitrotoluene	P	P	U
Dioxane	P	G	U
Dioxolane	P	G	U
E			
Epichlorohydrin	P	G	U
Ethane	E	P	U
Ethyl Acetate	P	G	P
Ethyl Acetoacetate	P	G	P
Ethyl Acrylate	P	G	P
Ethyl Alcohol	E	E	F
Ethyl Benzoate	P	E	P
Ethyl Cellosolve	P	P	U
Ethyl Chlorocarbonate	P	G	U
Ethyl Chloroformate	P	G	U
Ethyl Formate	P	G	U
Ethylene	E	G	U
Ethylene Chlorohydrin	P	G	P
Ethylene Glycol	E	E	E
Ethylene Oxide	P	F	P
F			
Fatty Acids	G	F	P
Ferric Chloride (aqueous solution)	E	E	E
Ferric Nitrate (aqueous solution)	E	E	E
Ferric Sulfate (aqueous solution)	E	E	E
Fish Oil	E	P	P
Fluorine (Liquid)	P	P	P
Fluorobenzene	P	P	U
Fluoroboric Acid	E	E	E
Fluorolube	E	E	U
Formaldehyde (RT)	F	E	F
Formic Acid	G	E	G
Fuel Oil	E	P	P
Fumaric Acid	E	G	U
G			
Gallic Acid	G	G	G
Gelatin	E	E	U
Glucose	E	E	E
Glycerin	E	E	E
Glycol	E	E	E

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
H			
Hexane	E	P	P
Hexyl Alcohol	F	F	F
Hydraulic Oils	E	P	P
Hydrazine	G	E	U
Hydrobromic Acid	P	E	G
Hydrobromic Acid 40%	P	E	U
Hydrochloric Acid (Cold) 37%	F	E	E
Hydrochloric Acid (Hot) 37%	P	F	E
Hydrocyanic Acid	G	E	E
Hydrofluoric Acid (Conc.) Cold	P	F	P
Hydrofluoric Acid (Conc.) Hot	P	P	P
Hydrofluoric Acid-Anhydrous	P	F	P
Hydrogen Gas	E	E	E
Hydrogen Peroxide (90%)	P	G	E
Hydrogen Sulphide (Wet) Cold	P	E	E
Hydrogen Sulphide (Wet) Hot	P	E	E
Hydroquinone	F	G	E
Hypochlorous Acid	P	G	E
I			
Iodine Pentafluoride	P	P	U
Isobutyl Alcohol	G	E	G
Isooctane	E	P	P
Isophorone	P	F	U
Isopropyl Acetate	P	G	P
Isopropyl Alcohol	G	E	F
Isopropyl Chloride	P	P	U
Isopropyl Ether	G	P	U
K			
Kerosene	E	P	P
L			
Lactic Acid (Cold)	E	E	E
Lactic Acid (Hot)	P	P	U
Lard	E	G	P
Lavender Oil	G	P	U
Lead Acetate (aqueous solution)	G	E	E
Lead Nitrate (aqueous solution)	E	E	U
Lead Sulphurate (aqueous solution)	G	E	U
Linoleic Acid	G	P	P
Linseed Oil	E	F	P

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Lubricating Oils (Petroleum)	E	P	P
M			
Magnesium Chloride (aqueous solution)	E	E	E
Magnesium Hydroxide (aqueous solution)	G	E	E
Magnesium Sulphate (aqueous solution)	E	E	E
Malic Acid	E	G	E
Mercury	E	E	E
Mercury Chloride (aqueous solution)	E	E	P
Methane	E	P	U
Methyl Acetate	P	E	U
Methyl Acrylate	P	G	U
Methyl Alcohol	E	E	E
Mineral Oil	E	F	P
Mono chlorobenzene	P	P	U
N			
Naphtha	G	P	F
Naphthalene	P	P	P
Naphthenic Acid	G	P	U
Natural Gas	E	P	E
Nickel Acetate (aqueous solution)	G	E	U
Nickel Chloride (aqueous solution)	E	E	E
Nickel Sulphate (aqueous solution)	E	E	E
Nitric Acid (Conc.)	P	P	P
Nitric Acid (Dilute)	P	G	F
Nitric Acid- Fuming	P	P	P
Nitrobenzene	P	E	P
Nitroethane	P	G	U
Nitrogen	E	E	E
Nitromethane	P	G	U
O			
Octadecane	E	P	U
Oleic Acid	F	P	F
Olive Oil	E	G	P
Oxalic Acid	G	E	E
Oxygen-Cold	G	E	E
Ozone	P	E	F
P			
Peanut Oil	E	F	P
Perchloric Acid	P	G	P
Petroleum-Above 120ºC	P	P	P

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Petroleum-Below 120°C	E	P	P
Phenylbenzene	P	P	U
Phenyl Hydrazine	P	G	P
Phosphoric Acid-20%	G	E	E
Phosphoric Acid-45%	P	E	E
Phosphorus Trichloride	P	E	P
Potassium Acetate (aqueous solution)	G	E	U
Potassium Chloride (aqueous solution)	E	E	E
Potassium Cupro Cyanide (aqueous solution)	E	E	U
Potassium Cyanide (aqueous solution)	E	E	E
Potassium Dichromate (aqueous solution)	E	E	E
Potassium Hydroxide (aqueous solution)	G	E	E
Potassium Nitrate (aqueous solution)	E	E	E
Potassium Sulphate (aqueous solution)	E	E	E
Propane	E	P	E
Propyl Alcohol	E	E	F
Propyl Nitrate	P	G	U
Propylene	P	P	U
Propylene Oxide	P	G	F
Pyridine	P	G	U
R			
Radiation	F	G	U
Rapeseed Oil	G	E	P
S			
Salicylic Acid	G	E	U
Salt Water	E	E	E
Silicate Esters	G	P	U
Silicone Greases	E	E	U
Silicone Oils	E	E	U
Silver Nitrate	G	E	E
Soap Solutions	E	E	E
Sodium Acetate (aqueous solution)	G	E	E
Sodium Bicarbonate (aqueous solution)	E	E	E
Sodium Bisulfite (aqueous solution)	E	E	E
Sodium Borate (aqueous solution)	E	E	U
Sodium Carbonate (aqueous solution)	E	E	E
Sodium Chloride (aqueous solution)	E	E	E
Sodium Cyanide (aqueous solution)	E	E	E
Sodium Hydroxide (aqueous solution)	G	E	G
Sodium Hypochlorite (aqueous solution)	G	G	E

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Sodium Metaphosphate (aqueous solution)	E	E	U
Sodium Nitrate (aqueous solution)	G	E	E
Sodium Peroxide (aqueous solution)	G	E	U
Sodium Phosphate (aqueous solution)	E	E	U
Sodium Silicate (aqueous solution)	E	E	U
Sodium Sulphate (aqueous solution)	E	E	E
Soybean Oil	E	F	P
Stannic Chloride (aqueous solution)	E	E	E
Stannous Chloride (aqueous solution)	E	E	E
Stearic Acid	G	G	G
Styrene	P	P	U
Sucrose Solution	E	E	U
Sulphur	P	E	E
Sulphur Dioxide (Dry)	P	E	E
Sulphur Dioxide (Wet)	P	E	P
Sulphur Hexafluoride	G	E	U
Sulphur Trioxide	P	G	E
Sulphuric Acid (20%)	P	P	G
Sulphuric Acid (Conc.)	P	F	P
Sulphuric Acid (Dilute)	F	G	G
Sulphurous Acid	G	G	E
T			
Tannic Acid	E	E	E
Tar, Bituminous	G	F	P
Tartaric Acid	E	G	E
Titanium Tetrachloride	G	P	P
Toluene	P	P	P
Toluene Diisocyanate	P	G	U
Trichloroethane	P	P	P
Trinitrotoluene	P	P	P
Turpentine	E	P	G
V			
Vegetable Oils	E	F	P
Vinyl Chloride	P	P	U
W			
Water	E	E	E
Whiskey, Wines	E	E	E
Wood Oil	E	P	U
X			
Xylene	P	P	P

Chemical Medium	Nitrile NBR	EPDM	Flexible PVC
Z			
Zinc Acetate (aqueous solution)	G	E	U
Zinc Chloride (aqueous solution)	E	E	E
Zinc Sulphate (aqueous solution)	E	E	E