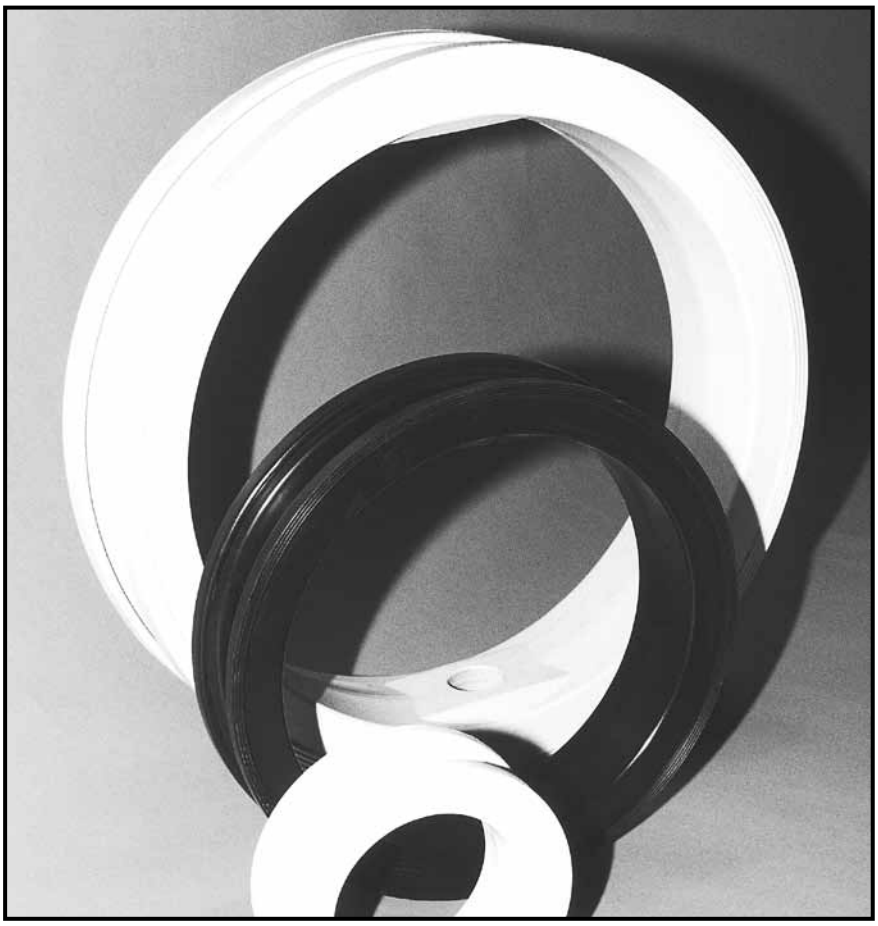
posi-flate®
butterfly valves

Seat Selection Guide



Choosing a Suitable Elastomer

Selecting a Posi-flate Seat Elastomer

Before selecting a Posi-flate seat, the following factors must be considered.

1. **Temperature:**
   Physical characteristics and chemical resistance of elastomers are affected by the operating temperature of the part in use. Each Posi-flate seat is tested and rated for a minimum and maximum operating temperature. This is determined by the elastomer's resistance to compression set, rebound and tensile strength.

2. **Pressure:**
   Posi-flate seats are designed for specific pressure ranges. For each Posi-flate application, the required seat inflation pressure must be within the minimum and maximum of the seat.*

3. **Chemical Compatibility:**
   Posi-flate offers a variety of elastomers to achieve compatibility with most chemicals. When selecting an elastomer, we recommend using an elastomer with "excellent" ratings (please reference Elastomer and Chemical Compatibility Chart, pages 6 through 15).

It is always best to test an elastomer prior to putting it to use. Upon request, Posi-flate will supply free test samples of seat elastomers.

Posi-flate Butterfly Valve Seat Guide

Seat Type	Pressure Range PSIG (BARG)						Temperature Range °F (°C)	
	Series 435, 436, 485, 486, 487 & 488		Series 483 & 484		Series 585 & 586			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Black Buna	40 (2.8)	115 (7.9)	40 (2.8)	70 (4.8)	60 (4.0)	115 (7.9)	-10° (-23°)	125° (52°)
FDA White Buna	40 (2.8)	70 (4.8)	40 (2.8)	70 (4.8)	60 (4.0)	70 (4.8)	20° (-7°)	125° (52°)
Black EPDM	40 (2.8)	115 (7.9)	40 (2.8)	70 (4.8)	60 (4.0)	130 (9.0)	-20° (-29°)	150° (65°)
Black Polyurethane	40 (2.8)	115 (7.9)	40 (2.8)	70 (4.8)	60 (4.0)	130 (9.0)	32° (0°)	150° (65°)
White Polyurethane	70 (4.8)	115 (7.9)	70 (4.8)	70 (4.8)	80 (5.5)	115 (7.9)	32° (0°)	150° (65°)
FDA White Silicone	40 (2.8)	115 (7.9)	40 (2.8)	70 (4.8)	N/A	N/A	-40° (-40°)	300° (149°)
Fluoroelastomer	40 (2.8)	55 (3.8)	40 (2.8)	55 (3.8)	60 (4.0)	70 (4.8)	50° (10°)	300° (149°)
FDA White Silicone HS	40 (2.8)	115 (7.9)	40 (2.8)	70 (4.8)	60 (4.0)	130 (9.0)	-40° (-40°)	350° (175°)

If operating outside of these constraints, please consult factory.

FDA Materials: Seats constructed of FDA approved materials.

Temperature Range: Operating temperature range.

Maximum Pressure: Maximum seat inflation pressure.

Minimum Pressure:** Minimum seat inflation pressure to ensure seal.

***** Seat inflation should be regulated to a minimum of 15 psig (1 barg) above material process pressure. Seat inflation should never be set below 40 psig (2.8 barg) for 430 and 480 Series valves. Seat inflation should never be set below 60 psig (4.0 barg) for 580 Series valves.***

General Chemical Resistance of Elastomers

COMPOUND	CHEMICAL GROUP	GENERALLY ATTACKED BY	GENERALLY RESISTANT TO
Buna-N	Butadiene Acrylonitrile Copolymer	Many Hydrocarbons, Fats, Oils, Greases, Hydraulic Fluids, Chemicals	Ozone Ketones, Esters, Aldehydes, Chlorinated and Nitro Hydrocarbons
Polyurethane	Urethane Polymer	Ozone, Hydrocarbons, Moderate Chemicals, Fats, Oils, Greases	Concentrated Acids, Ketones, Esters, Chlorinated and Nitro Hydrocarbons
EPDM	Ethylene Propylene Copolymer and Terpolymer	Animal and Vegetable Oils, Ozone, Strong and Oxidizing Chemicals	Mineral Oils and Solvents, Aromatic Hydrocarbons
Fluoroelastomer	Fluorocarbon Polymer	All Aliphatic, Aromatic and Halogenated Hydrocarbons, Acids, Animal and Vegetable Oils	Ketones, Low Mole Weight Esters and Nitro Containing Compounds
Silicone	Organic Silicone Polymer	Moderate or Oxidizing Chemicals, Ozone, Concentrated Sodium Hydroxide	Many Solvents, Oils, Concentrated Acids, Dilute Sodium Hydroxide

NOTE: *The following pages are offered as a general guide and indication of the suitability of various elastomers in use today for service in these chemicals and fluids. The ratings are based, for the most part, on published literature of various elastomer suppliers and rubber manufacturers, but, in some cases, they are the considered the opinion of experienced compounders. We cannot guarantee their accuracy nor assume responsibility for use thereof.* ***The purchaser bears the final responsibility for chemical compatibility.*** *Test samples of elastomers will be supplied upon request.*

Posi-flate Elastomer Profiles

Buna-N

Chemical Definition: Butadiene Acrylonitrile
Compression Set: Good
Abrasion Resistance: Good
Solvent Resistance: Good to Excellent
Oil Resistance: Good to Excellent
Operating Temperature: Black Buna-N: -10° F to 125° F
White Buna-N: 20 F to 125° F
Operating Pressure: Black Buna-N: 40 PSIG to 115 PSIG
White Buna-N: 40 PSIG to 70 PSIG
Aging Weather - Sunlight: Fair

Comments:

- Buna N is a general purpose elastomer which has good solvent, oil and water resistance.
- Buna-N should not be used in highly polar solvents such as Acetone and MEK.

Posi-flate Elastomer Profiles

Polyurethane

Chemical Definition: Polyester/Polyether Urethane
Compression Set: Good
Abrasion Resistance: Excellent
Solvent Resistance: Fair
Oil Resistance: Good
Operating Temperature: 32° F to 150° F
Operating Pressure: 40 PSIG to 115 PSIG
Aging Weather - Sunlight: Excellent

Comments:

- Wear resistance is excellent and greatly superior to most other polymers.
- Oil resistance is good and equivalent to the better nitriles.
- Good ozone resistance.

EPDM

Chemical Definition: Ethylene Propylene
Compression Set: Good
Abrasion Resistance: Excellent
Solvent Resistance: Fair
Oil Resistance: Fair
Operating Temperature: -20° F to 150° F
Operating Pressure: 40 PSIG to 115 PSIG
Aging Weather - Sunlight: Excellent

Comments:

- Exceptionally good weather aging and ozone resilience.
- Excellent water and chemical resistance.
- Fairly good in ketones and alcohols.

Posi-flate Elastomer Profiles

Fluoroelastomers

Chemical Definition: Fluorinated Hydrocarbon
Compression Set: Excellent
Abrasion Resistance: Good
Solvent Resistance: Excellent
Oil Resistance: Excellent
Operating Temperature: 50° F to 200° F
Operating Pressure: 40 PSIG to 55 PSIG
Aging Weather - Sunlight: Excellent
Comments:

- Excellent in severe environments due to their comparatively long useful service life.
- Outstanding resistance to a wide range of solvents and petroleum based oils.
- Excellent heat resistance.
- Not be used in contact with ketones.

Silicone

Chemical Definition: Polysiloxane
Compression Set: Excellent
Abrasion Resistance: Fabric Reinforced: Fair to Poor
High Strength: Good
Solvent Resistance: Fair
Oil Resistance: Fair
Operating Temperature: Fabric Reinforced: -40° F to 300° F
High Strength: -40° F to 300° F
Operating Pressure: 40 PSIG to 115 PSIG
Aging Weather - Sunlight: Excellent
Comments:

- Excellent high and low temperature properties.
- High resistance to oxidation and ozone attack.

Elastomer and Chemical Compatibility Chart

On the following pages is an Elastomer and Chemical Compatibility Chart. The Rating System is as follows:

A = Excellent B = Good C = Fair to Poor U = Do not use - = No data or insufficient evidence.

	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Acetaldehyde	U	U	A	U	A
Acetamide	A	U	A	B	B
Acetic Acid, Glacial	C	U	A	C	B
Acetic Acid, 30%	B	C	A	B	A
Acetic Anhydride	C	U	B	U	C
Acetone	U	U	A	U	B
Acetophenone	U	U	A	U	-
Acetyl Chloride	-	-	-	A	-
Acetylene	B	-	A	A	B
Acrylonitrile	U	-	U	U	U
Adipic Acid	A	-	-	-	-
Alkazena	-	B	U	B	-
Alum-NH3-Cr-K	A	-	A	U	A
Aluminum Acetate	B	-	A	-	U
Aluminum Chloride	A	-	A	A	A
Aluminum Fluoride	A	-	A	A	B
Aluminum Nitrate	A	-	A	-	-
Aluminum Phosphate	A	-	A	A	A
Aluminum Sulfate	A	-	A	A	A
Ammonia Anhydrous	A	-	A	U	C
Ammonia Gas (Cold)	A	-	A	-	A
Ammonia Gas (Hot)	-	-	B	U	A
Ammonium Carbonate	U	-	A	-	-
Ammonium Chloride	A	-	A	-	-
Ammonium Hydroxide	U	A	A	B	A
Ammonium Nitrate	A	U	A	-	-
Ammonium Nitrite	A	-	A	-	B
Ammonium Persulfate	U	U	A	-	-
Ammonium Phosphate	A	-	A	-	A
Ammonium Sulfate	A	-	A	-	-
Amyl Acetate	U	U	A	U	U
Amyl Alcohol	B	U	A	B	U
Amyl Borate	A	-	U	A	-
Amyl Chloronapthalene	-	U	U	A	U
Amyl Napthalene	U	U	U	A	U
Aniline	U	U	B	C	-
Aniline Dyes	U	U	B	B	-
Aniline Hydrochloride	B	U	B	B	U
Animal Fats	A	A	B	A	B
Ansul Ether	C	B	C	U	U
Aqua Regia	-	-	C	B	-
Arochlor(s)	C	-	C	A	B
Arsenic Acid	A	C	A	A	A
Arsenic Trichloride	A	-	-	-	-
Askarel	B	U	U	A	U
Asphalt	B	B	U	A	U
Barium Chloride	A	A	A	A	A
Barium Hydroxide	A	A	A	A	A
Barium Sulfate	A	A	A	A	A
Barium Sulfide	A	A	A	A	A
Beer	A	-	A	A	A

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Beet Sugar Liquors	A	-	A	A	A
Benzene	U	U	U	A	U
Benzenesulfonic Acid	-	-	-	A	-
Benzaldehyde	U	U	A	U	U
Benzyl Alcohol	U	-	B	A	-
Benzyl Benzoate	-	-	B	A	-
Benzyl Chloride	U	-	-	A	-
Benzoic Acid	-	-	-	A	B
Blast Furnace Gas	U	-	-	A	A
Bleach Solutions	-	-	A	A	B
Borax	B	A	A	A	B
Bordeaux Mixture	-	-	A	A	B
Boric Acid	A	A	A	A	A
Brine	A	-	A	-	-
Bromine - Anhydrous	-	-	-	A	C
Bromine Triflouride	U	U	U	U	U
Bromine Water	-	-	-	A	-
Bromobenzene	U	U	U	A	U
Bunker Oil	A	B	-	A	B
Butadiene	U	U	C	B	-
Butane	A	A	U	A	-
Butter	A	A	A	A	A
Butyl Acetate	-	-	B	U	U
Butyl Acetyl Ricinoleate	-	-	A	A	-
Butyl Acrylate	-	-	U	U	-
Butyl Alcohol	A	U	B	A	B
Butyl Amine	C	U	U	U	B
Butyl Benzoate	-	-	A	A	-
Butyl Carbitol	A	-	A	A	-
Butyl Cellosolve	C	-	A	U	-
Butyl Oleate	-	-	B	A	-
Butyl Stearate	B	-	B	A	-
Butylene	B	-	U	A	-
Butyraldehyde	C	-	B	U	C
Calcium Acetate	B	-	A	U	-
Calcium Bisulfite	A	A	U	A	A
Calcium Chloride	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A
Calcium Hypochlorite	C	-	A	A	B
Calcium Nitrate	A	A	A	A	B
Calcium Sulfide	B	A	A	A	B
Cane Sugar Liquors	A	U	A	A	A
Carbamate	C	U	B	A	-
Carbitol	B	U	B	B	B
Carbolic Acid	U	-	B	A	U
Carbon Bisulfide	C	-	U	A	-
Carbon Dioxide	A	A	B	A	A
Carbonic Acid	A	A	A	A	A
Carbon Monoxide	A	A	A	A	A
Carbon Tetrachloride	C	C	U	A	U
Caster Oil	A	A	B	A	A
Cellosolve	-	-	B	C	-
Cellosolve Acetate	U	U	B	U	-
Cellulube	U	-	A	A	-

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Chlorine (Dry)	-	-	-	A	-
Chlorine (Wet)	-	U	C	A	-
Chlorine Dioxide	U	-	C	A	-
Chlorine Trifluoride	U	U	U	U	U
Chloroacetone	U	-	A	U	-
Chloroacetic Acid	-	-	B	-	-
Chlorobenzene	U	C	U	A	U
Chlorobromomethane	-	-	B	B	U
Chlorobutadiene	U	-	U	A	-
Chlorododecane	U	-	U	A	-
Chloroform	U	-	U	A	U
Chloronapthalene-0	U	-	U	A	U
Chloro-1 Nitro Ethane-1	U	U	U	C	U
Chlorosulfonic Acid	U	U	U	C	-
Chlorotoluene	U	U	U	A	-
Chrome Plating Solutions	U	U	U	A	B
Chromic Acid	U	U	C	A	C
Citric Acid	A	A	A	A	A
Cobalt Chloride	A	U	A	-	A
Coconut Oil	A	A	A	-	A
Cod Liver Oil	A	A	A	A	B
Coke Oven Gas	-	-	-	A	B
Copper Acetate	B	-	A	-	-
Copper Chloride	A	A	A	A	A
Copper Cyanide	A	A	A	A	A
Copper Sulfate	A	A	A	A	A
Corn Oil	A	A	C	A	A
Cottonseed Oil	A	A	A	A	A
Creosote	B	B	U	A	U
Cresol	C	U	U	A	-
Cresylic Acid	C	U	U	A	-
Cumene	-	-	-	A	-
Cyclohexane	A	B	U	A	U
Cyclohexanol	B	-	U	A	-
Cyclohexanone	U	-	B	U	-
Cymene-p	-	-	-	A	-
Decalin	-	-	-	A	-
Decane	B	B	-	A	B
Denatured Alcohol	A	C	A	A	A
Detergent Solutions	A	U	A	A	A
Developing Fluids	A	-	B	A	A
Diacetone	-	B	A	U	-
Diacetone Alcohol	U	B	A	-	A
Dibenzyl Ether	U	B	B	-	-
Dibenzyl Sebecate	-	B	B	B	C
Dibutyl Amine	U	-	U	U	C
Dibutyl Ether	C	B	C	C	U
Dibutyl Phthalate	U	C	A	B	B
Dibutyl Sebecate	U	U	B	B	B
Dichlorobenzene-O	U	U	U	A	U
Dichloro-Isopropyl Ether	U	B	C	C	U
Dicyclohexylamine	C	-	-	-	-

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Diesel Oil	A	B	U	A	U
Diethlamine	C	C	B	U	B
Diethyl Benzene	U	U	U	A	U
Diethyl Ether	U	A	U	U	U
Diethylene Glycol	A	U	A	A	B
Diethyl Sebecate	U	-	B	B	B
Diisobutylene	B	-	-	A	U
Diisopropyl Benzene	U	-	U	A	-
Diisopropyl Ketone	U	-	A	U	-
Dimethyl Aniline	-	-	B	U	-
Dimethyl Formamide	B	-	-	U	B
Dimethyl Phthalate	U	-	B	B	-
Dinitrotoluene	U	-	U	C	-
Dioctyl Phthalate	-	-	B	B	C
Dioctyl Sebecate	U	B	B	B	C
Dioxane	-	-	B	-	-
Dioxolane	U	-	B	-	-
Dipentene	B	-	-	A	-
Diphenyl	-	-	-	A	-
Diphenyl Oxides	-	-	A	A	C
Dowtherm Oil	-	B	U	A	B
Dry Cleaning Fluids	C	-	U	A	-
Epichlorohydrin	-	-	B	U	-
Ethane	A	B	U	A	U
Ethanolamine	B	C	B	U	B
Ethyl Acetate	U	U	B	U	B
Ethyl Acetoacetate	U	-	B	U	B
Ethyl Acrylate	-	-	B	U	B
Ethyl Alcohol	A	B	A	A	A
Ethyl Benzene	U	U	U	A	-
Ethyl Benzoate	-	-	B	A	-
Ethyl Cellosolve	-	-	B	U	-
Ethyl Cellulose	-	B	B	U	C
Ethyl Chloride	A	B	A	A	U
Ethyl Chlorocarbonate	-	-	-	A	-
Ethyl Chloroformate	-	-	-	A	-
Ethyl Ether	C	B	C	U	-
Ethyl Formate	U	-	B	A	-
Ethyl Mecaptan	U	-	U	A	-
Ethyl Oxalate	U	A	A	A	-
Ethyl Pentochlorobenzene	C	C	U	A	-
Ethyl Silicate	A	-	A	A	-
Ethylene	A	-	-	A	-
Ethylene Chloride	-	-	C	A	-
Ethylene Chlorohydrin	U	-	-	A	C
Ethylene Diamene	A	-	A	U	A
Ethylene Dichloride	U	U	C	A	C
Ethylene Glycol	A	B	A	A	A
Ethylene Oxide	U	-	C	U	C
Ethylene Trichloride	U	-	C	A	C
Fatty Acids	B	-	U	A	C
Ferric Chloride	A	A	A	A	A
Ferric Nitrate	A	-	A	A	C

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Ferric Sulfate	A	-	A	A	B
Fish Oil	A	-	-	A	A
Fluoroboric Acid	A	-	A	-	-
Fluorine (liquid)	-	-	C	B	U
Fluorobenzene	U	-	U	A	U
Fluorocarbon Oils	-	-	A	-	-
Fluorolube	A	-	A	B	-
Fluorinated Cyclic Ethers	-	-	A	-	-
Fluosilicic Acid	A	-	-	-	-
Formaldehyde	B	U	A	A	-
Formic Acid	B	U	A	C	B
Freon 11	A	U	U	A	U
Freon 12	A	A	B	B	U
Freon 13	A	-	A	A	-
Freon 21	U	-	U	U	U
Freon 22	U	U	A	U	U
Freon 31	U	-	A	U	-
Freon 32	A	-	A	C	-
Freon 112	B	-	U	A	-
Freon 113	A	B	U	B	U
Freon 114	A	A	A	B	U
Freon 115	A	-	A	B	-
Freon 142b	A	-	A	U	-
Freon 152a	A	-	A	U	-
Freon 218	A	-	A	A	-
Freon C316	A	-	A	-	-
Freon C318	A	-	A	A	-
Freon 13B1	A	A	A	A	U
Freon 114B2	B	-	U	B	-
Freon 502	B	-	-	B	-
Freon TF	A	A	U	A	U
Freon T-WD602	B	A	B	A	U
Freon TMC	B	B	B	A	C
Freon T-P35	A	A	A	A	A
Freon TA	A	A	A	C	A
Freon TC	A	A	B	A	U
Freon MF	A	C	-	-	-
Freon BF	B	-	-	-	-
Fuel Oil	A	B	U	A	U
Fumaric Acid	A	-	-	A	B
Furan, Furfuran	U	-	C	-	-
Fufural	U	-	B	U	-
Gallic Acid	B	U	B	A	-
Gasoline	A	A	U	A	U
Gelatin	A	A	A	A	A
Glauber's Salt	-	-	B	A	-
Glucose	A	A	A	A	A
Glue	A	A	A	A	A
Glycerin	A	A	A	A	A
Glycols	A	B	A	A	A
Green Sulfate Liquor	B	A	A	A	A
Halowax Oil	U	-	U	A	U
Hexaldehyde-n	U	B	A	-	B

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Hexane	A	B	U	A	U
Hexene-n-l	B	A	U	A	U
Hexyl Alcohol	A	U	C	A	B
Hydrazine	B	U	A	-	C
Hydraulic Oil (Petroleum)	A	A	U	A	C
Hydrobromic Acid	U	U	A	A	U
Hydrochloric Acid (hot) 37%	U	U	C	A	U
Hydrochloric Acid (cold) 37%	B	U	A	A	B
Hydrocyanic Acid	B	-	A	A	-
Hydrofluoric Acid (conc.) hot	U	U	U	B	U
Hydrofluoric Acid (conc.) cold	U	U	B	A	U
Hydrofluoric Acid-Anhydrous	-	-	B	-	U
Hydrofluosilicic Acid	B	-	A	A	U
Hydrogen Gas	A	A	A	A	C
Hydrogen Peroxide (90%)	U	-	C	B	A
Hydrogen Sulfide (wet) (cold)	U	-	A	U	C
Hydrogen Sulfide (wet) (hot)	U	-	A	U	C
Hydroquinone	C	-	-	U	-
Hypochlorous Acid	U	-	B	A	-
Iodine Pentafluoride	U	U	U	U	U
Iodoform	-	-	A	-	-
Isobutyl Alcohol	B	U	A	A	A
Isoctane	A	B	U	A	U
Isophorone	U	B	A	U	-
Isopropyl Acetate	U	A	A	U	-
Isopropyl Alcohol	B	-	A	A	A
Isopropyl Chloride	U	-	U	A	-
Isopropyl Ether	B	B	U	U	-
Kerosene	A	B	U	A	U
Lacquers	U	U	U	U	U
Lacquer Solvents	U	U	U	U	U
Lactic Acid	A	-	A	A	A
Lard	A	A	U	A	B
Lavender Oil	B	-	U	A	-
Lead Acetate	B	-	A	-	U
Lead Nitrate	A	-	A	-	B
Lead Sulfamate	B	-	A	A	B
Lime Bleach	A	-	A	A	B
Lime Sulfure	U	-	A	A	A
Lindol	-	-	A	B	C
Linoleic Acid	B	-	U	B	B
Linseed Oil	A	B	B	A	-
Liquefied Petroleum Gas	A	A	U	A	C
Lubricating Oils (Petroleum)	A	B	U	A	U
Lye	B	B	A	B	B
Magnesium Chloride	A	A	A	A	A
Magnesium Hydroxide	B	A	A	A	-
Magnesium Sulfate	A	-	A	A	A
Maleic Acid	-	-	C	A	-
Maleic Anhydride	-	-	C	A	-
Malic Acid	A	-	U	A	B

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Mercuric Chloride	A	-	A	A	-
Mercury	A	A	A	A	-
Mesityl Oxide	U	-	B	U	U
Methane	A	B	U	A	U
Methyl Acetate	U	-	B	U	-
Methyl Acrylate	U	-	B	U	-
Methylacrylic Acid	-	-	B	B	-
Methyl Alcohol	A	U	A	C	A
Methyl Bromide	B	-	-	A	-
Methyl Butyl Ketone	U	-	A	U	B
Methyl Cellosolve	-	-	B	U	-
Methyl Chloride	U	-	C	A	U
Methyl Cyclopentane	-	-	U	A	-
Methylene Chloride	U	U	U	B	-
Methyl Ethyl Ketone	U	U	A	U	-
Methyl Formate	U	-	B	-	B
Methyl Isobutyl Ketone	U	-	C	U	C
Methyl Methacrylate	U	-	U	U	C
Methyl Oleate	U	-	B	A	-
Methyl Salicylate	-	-	B	-	-
Milk	A	U	A	A	A
Mineral Oil	A	A	U	A	B
Monochlorobenzene	U	-	U	A	U
Monomethyl Aniline	U	-	-	B	-
Monoethanolamine	U	-	B	U	B
Monomethylether	A	-	A	-	-
Monovinyl Acetylene	A	-	A	A	B
Mustard Gas	-	-	A	-	A
Naptha	C	C	U	A	U
Napthalene	U	B	U	A	U
Napthenic Acid	B	-	U	A	-
Natural Gas	A	B	U	A	A
Neatsfoot Oil	A	-	B	A	B
Neville Acid	C	-	B	A	-
Nickel Acetate	B	-	A	U	-
Nickel Chloride	A	-	A	A	A
Nickel Sulfate	A	A	A	A	A
Niter Cake	A	-	A	A	A
Nitric Acid - Conc.	U	U	C	A	U
Nitric Acid - Dilute	U	C	B	A	B
Nitric Acid - Red Fuming	U	U	U	C	U
Nitrobenzene	U	U	U	B	U
Nitrobenzine	-	-	C	A	-
Nitroethane	U	-	B	U	U
Nitromethane	U	-	B	U	U
Nitrogen	A	A	A	A	A
Nitrogen Tetroxide	U	-	C	U	C
Octadecane	A	A	U	A	U
Octane-n	-	-	U	A	U
Octachlorotoluene	U	U	U	A	U
Octyl Alcohol	B	U	A	A	B
Oleic Acid	C	B	B	B	-
Oleum Spirits	B	C	-	A	-

Elastomer and Chemical Compatibility Chart

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Olive Oil	A	A	B	A	U
o-Dichlorobenzene	U	-	-	A	-
Oxalic Acid	B	-	A	A	B
Oxygen - cold	B	A	A	A	A
Oxygen - 200-400° F	U	U	U	B	B
Ozone	U	A	A	A	A
Paint Thinner, Duco	-	-	U	B	-
Palmitic Acid	A	A	B	A	-
Peanut Oil	A	B	C	A	A
Perchloric Acid	-	-	B	A	U
Perchloroethylene	C	U	U	A	B
Petroleum - Below 250	A	B	U	A	B
Petroleum - Above 250	C	U	U	B	U
Phenol	-	U	B	A	C
Phenylbenzene	U	-	U	A	-
Phenyl Ethyl Ether	U	-	U	-	-
Phenyl Hydrazine	U	-	C	A	-
Phorone	-	-	B	-	-
Phosphoric Acid - 20%	B	A	A	A	-
Phosphoric Acid - 45%	U	A	B	A	U
Phosphorous Trichloride	U	-	A	A	-
Pickling Solution	-	-	C	B	-
Picric Acid	B	B	B	A	U
Pinene	B	B	U	A	U
Pine Oil	B	-	U	A	-
Piperidine	U	-	U	U	-
Plating Solution - Chrome	-	-	A	A	U
Plating Solution - Others	A	-	A	A	U
Polyvinyl Acetate Emulsion	-	-	A	-	-
Potassium Acetate	B	-	A	U	-
Potassium Chloride	A	A	A	A	A
Potassium Cupro Cyanide	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A
Potassium Dichromate	A	A	A	A	A
Potassium Hydroxide	B	B	A	B	C
Potassium Nitrate	A	A	A	A	A
Potassium Sulfate	A	A	A	A	A
Producer Gas	A	A	U	A	B
Propane	A	B	U	A	U
Propyl Acetate	U	-	B	U	-
Propyl Acetate-n	U	-	A	U	-
Propyl Alcohol	A	U	A	A	A
Propyl Nitrate	-	-	B	U	C
Propylene	U	-	U	A	-
Propylene Oxide	-	-	B	-	U
Pyranol	A	B	U	A	B
Pydrauls	U	U	B	A	B
Pyridine	U	-	B	U	-
Pyroligneous Acid	-	-	B	-	-
Pyrrole	U	-	C	-	B
Radiation	B	A	B	U	C
Rapeseed Oil	B	B	A	A	U
Red Oil	A	A	U	A	U

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Sal Ammoniac	A	A	A	A	B
Salicylic Acid	A	-	A	A	-
Salt Water	A	-	A	A	-
Sewage	A	U	B	A	B
Silicate Esters	B	A	U	A	U
Silicone Greases	A	A	A	A	C
Silicone Oils	A	A	A	A	C
Silver Nitrate	B	A	A	A	A
Skydrol 500	U	U	A	U	C
Skydrol 7000	U	U	A	B	B
Soap Solutions	A	A	A	A	A
Soda Ash	A	-	A	A	A
Sodium Acetate	B	U	A	U	-
Sodium Bicarbonate	A	-	A	A	A
Sodium Bisulfite	A	-	A	A	A
Sodium Borate	A	-	A	A	A
Sodium Chloride	A	A	A	A	A
Sodium Cyanide	A	-	A	A	A
Sodium Hydroxide	B	B	A	B	B
Sodium Hypochlorite	B	U	B	A	B
Sodium Metaphosphate	A	-	A	A	-
Sodium Nitrate	B	-	A	-	U
Sodium Perborate	B	-	A	A	B
Sodium Peroxide	B	U	A	A	U
Sodium Phosphate	A	A	A	A	U
Sodium Silicate	A	-	A	A	-
Sodium Sulfate	A	A	A	A	A
Sodium Thiosulfate	B	A	A	A	A
Soybean Oil	A	B	C	A	A
Stannic(ous) Chloride	A	-	B	A	B
Steam Under 300°F	U	U	A	U	U
Steam Over 300°F	U	U	B	U	U
Stearic Acid	B	A	B	-	A
Stoddard Solvent	A	A	U	A	U
Styrene	U	-	U	B	U
Sucrose Solution	A	-	A	-	-
Sulfite Liquors	B	-	B	A	U
Sulfur	U	-	A	A	A
Sulfur Chloride	C	-	U	A	-
Sulfur Dioxide	U	-	A	A	A
Sulfur Hexafluoride	A	-	A	A	A
Sulfur Trioxide	U	-	B	A	B
Sulfuric Acid (Dilute)	U	B	B	A	U
Sulfuric Acid (Conc.)	U	U	B	A	U
Sulfuric Acid (20% Oleum)	U	U	U	A	U
Sulfurous Acid	B	U	B	A	U
Tannic Acid	A	A	A	A	B
Tar, Bituminous	B	-	U	A	B
Tartaric Acid	A	A	B	A	A
Terpineol	B	B	C	A	-
Tertiary Butyl Alcohol	B	U	B	A	B
Tertiary Butyl Catechol	U	U	B	A	-

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	BUNA-N	POLYURETHANE	EPDM	FLUOROELASTOMER	SILICONE
Tertiary Butyl Mercaptan	U	U	U	A	-
Tetrabromomethane	U	-	U	A	-
Tetrabutyl Titanate	B	-	A	A	-
Tetrachloroethylene	U	B	U	A	-
Tetraethyl Lead	B	-	U	A	-
Tetrahydrofuran	-	-	B	U	-
Tetralin	U	-	U	A	-
Thionyl Chloride	-	-	U	A	-
Titanium Tetrachloride	C	-	U	A	-
Toluene	U	C	U	A	U
Toluene Diisocyanate	-	-	A	-	-
Transformer Oil	A	-	U	A	B
Transmission Fluid Type A	A	A	U	A	B
Triacetin	B	U	A	U	-
Tributoxy Ethyl Phosphate	U	U	A	A	-
Tributyl Phosphate	U	U	A	U	-
Trichloroethane	U	U	U	A	U
Trichloroacetic Acid	B	-	B	C	-
Trichloroethylene	C	U	U	A	B
Tricresyl Phosphate	U	C	A	B	C
Triethanol Amine	C	U	B	U	-
Triethyl Aluminum	-	-	-	B	-
Triethyl Borane	-	-	-	A	-
Trinitrotoluene	U	-	U	B	-
Trioctyl Phosphate	U	-	A	B	C
Triaryl Phosphate	U	B	A	A	C
Tung Oil	A	B	U	A	-
Turbine Oil	B	-	U	A	-
Turpentine	A	U	U	A	U
Unsymmetrical Dimethyl	-	-	-	-	-
UDMH (Hydrazine)	B	-	A	U	U
Varnish	B	-	U	A	-
Vegetable Oils	A	-	A	A	A
Versilube	A	-	A	A	C
Vinegar	B	-	A	A	A
Vinyl Chloride	-	-	B	A	-
Wagner 21B Fluid	C	-	A	U	C
Water	A	A	A	A	A
Whiskey, Wines	A	A	A	A	A
White Pine Oil	B	-	U	A	-
White Oil	A	-	U	A	U
Wood Oil	A	-	U	A	U
Xylene	U	C	U	A	U
Xylidenes	C	-	U	U	U
Zeolites	A	-	A	A	-
Zinc Acetate	B	-	A	U	U
Zinc Chloride	A	-	A	A	-
Zinc Sulfate	A	-	A	A	A

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