CHEMICAL RESISTANCES

NR Natural
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

SBR Styrene-butadiene
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

CR Chloroprene
Excellent ozoneand ageing properties.
Flame retarding.
Good resistance to petroleum based fluids.
Good physical properties.

NBR
Acrylonitrile-butadiene
Exceltent resistance to oils.
Good physical properties.

IIR
Butyl
Good weathering resistance.
Low permeability to air.
Good physical properties.
Poor resistance to oils.

CSM
Hypalon (Chlorosulfonyl-polyethylene)
Excellent ozone and ageing properties.
Good heat and abrasión resistance.
Good resistance to petroleum based fluids.

EPDM
Ethylene-propyiene-diene-terpolymer
Excellent ozone, chemical and ageing properties.
Good heat resistance.
Poor resistance to oils.

FKM
Viton (Fluoroelastomer)
Excellent high temperature resistance.
Very good chemical and oil resistance.

XLPE
Cross Linked Polyethylene
Excellent resistance to most solvents and chemicals.

●	Valid
●	Discontinuous use
●	Not valid
	No data

Material	NR	SBR	CR	NBR	IIR	CSM	EPDM	FKM	XLPE
Acetaldehide	●	●	●	●	○	●	○	●	○
Acetamide	●	●	◉	●	○	◉	○	●	○
Acetic acid, dilute, 10%	○	◉	◉	◉	○	◉	○	●	○
Acetic acid, glacial	◉	●	●	●	○	◉	○	●	○
Acetic acid anhydride	◉	◉	○	○	○	○		●	○
Acetone	○	○	○	●	○	○	○	●	○
Acetonitrile				●	◉	◉	◉	●	○
Acetophenone	●	●	●	●	○	●	○	●	○
Acetylacetone	●	●	●	●	○	◉	○	●	○
Acetylchloride	●	●	●	●	●	●	●	○	○
Acetylene	○	○	○	○	○	○	○	○	○
Acrylnitrile	●	●	●	●	●	●	●	●	○
Acrylic acid	●			●	○	○	○	●	
Adipic acid	○	○		○	○	○	○	○	○
Air 68°F (20°C)	○	○	○	○	○	○	○	○	○
Air 150°F (65°C)	○	○	○	○	○	○	○		○
Alkyl alcohol	○			○	○	○	○	○	○
Alkylbenzene	●			●	●	●	●	○	○
Aluminum chloride 150°F (65°C)	○	○	○	○	○	○	○	○	○
Aluminum fluoride 150°F (65°C)	○	○	○	○	○	○	○		○
Aluminium nitrate	○	○	○	○	○	○	○	○	○
Aluminum sulfate 150° F (65°C)	○	○	○	○	○	○	○	○	○
Alums 150°F (65°C)	○	○	○	○	○	○	○		○
Ammonia gas, anhydrous	○	○	○	○	○	○	○	●	○
Ammonia, 10% water solution	○	○	○	○	○	○	○	○	○
Ammonia, 30% water solution	○	○	○	○	○	○	○	○	○
Ammonium acetate	○	○	○	○	○	○	○	○	○
Ammonium chloride	○	○	○	○	○	○	○	○	○
Ammonium hydroxide	◉	○	○	○	○	○	○	○	○
Ammonium nitrate	○	○	○	○	○	○	○		○
Ammonium phosphate, monobasic	○	○	○	○	○	○	○		○
Ammonium phosphate, dibasic	○	○	○	○	○	○	○		○
Ammonium phosphate, tribasic	○	○	○	○	○	○	○		○
Ammonium sulfate	○	○	○	○	○	○	○	○	○
Amyl acetate	○	●	●	●	○	●	○	●	○
Amyl alcohol	○	○	○	○	○	○	○	○	○
Aniline, Aniline oil	●	●	◉	●	○	●	◉	○	○
Aniline dyes	○	○	○	○	○	○	◉		
Asphalt	●	●	○	○	●	○	●	○	●
Barium chloride 150°F (65°C)	○	○	○	○	○	○	○	○	○
Barium hydroxide 150°F (65°C)	○	○	○	○	○	○	○	○	○
Barium sulfide 150°F (65°C)	○	○	○	○	○	○	○	○	○
Beer	○	○	○	○	○	○	○	○	○
Beet sugar liquors	○	○	○	○	○	○	○	○	○
Benzalaldehide	◉	◉		◉	◉	◉	◉	◉	○
Benzene, Benzol	●	●	●	◉	●	●	●	○	○
Benzine, petroleum ether and naphtha	●	●	◉	○	●	○	●	○	○
Benzoic acid	○	○	◉	○	○	○	○	○	○
Benzoic methyl ester	●			●	○	●	○	●	○
Benzoic ethyl ester	●			●	○	●	○	●	○
Benzyl alcohol	○		◉	●	○	○	○	○	○
Benzyl chloride	●	●	●	●	●	●	●	○	○
Black sulfate liquor	○	○	○	○	○	○	○		○
Blast funace gas	◉	◉	○	◉	◉	◉	◉	○	○
Borax	○	○	○	○	○	○	○	○	○
Boric acid	○	○	○	○	○	○	○	○	○
Bromine	●	●	●	●	●	◉	●	○	○
Bromo benzol	●	●		●	●	●	●	○	●
Butane	●	●	○	○	●	○	●	○	○
Butyl acetate	◉	●	●	●	○	●	○	●	○
Butyl alcohol. Butanol	○	○	○	○	○	○	○	○	○
Butyric acid	●			●	○	○	○	○	○
Butylamine	●			●	○	●	○	○	○
Butylbenzoate	●	●		●	○	●	○	●	○
Butyl ether	●	●		●	●	●	●	●	○
Calcium bisulfate	◉	◉	○	○	○	○	○	○	○
Calcium chloride	○	○	○	○	○	○	○	○	○

This Chemicals list is only meant as a guide, and is subject to change.

21 January 2021

CHEMICAL RESISTANCES

NR Natural
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

SBR Styrene-butadiene
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

CR Chloroprene
Excellent ozoneand ageing properties.
Flame retarding.
Good resistance to petroleum based fluids.
Good physical properties.

NBR
Acrylonitrile-butadiene
Exceltent resistance to oils.
Good physical properties.

IIR
Butyl
Good weathering resistance.
Low permeability to air.
Good physical properties.
Poor resistance to oils.

CSM
Hypalon (Chlorosulfonyl-polyethylene)
Excellent ozone and ageing properties.
Good heat and abrasión resistance.
Good resistance to petroleum based fluids.

EPDM
Ethylene-propyiene-diene-terpolymer
Excellent ozone, chemical and ageing properties.
Good heat resistance.
Poor resistance to oils.

FKM
Viton (Fluoroelastomer)
Excellent high temperature resistance.
Very good chemical and oil resistance.

XLPE
Cross Linked Polyethylene
Excellent resistance to most solvents and chemicals.

○	Valid
●	Discontinuous use
◌	Not valid
	No data

Material	NR	SBR	CR	NBR	IIR	CSM	EPDM	FKM	XLPE
Calcium hydroxide	○	○	○	○	○	○	○	○	○
Calcium hypochlorite	◌	◌	◌	◌	○	○	○	○	○
Caliche liquors	○	○	○	○	○	○	○		○
Cane sugar liquors	○	○	○	○	○	○	○	○	○
Caproic acid	◌			○	○	◌	○		◌
Carbolic acid, phenol	●	●	●	●	●	●	○	○	○
Carbón dioxide, dry/wet	○	○	○	○	○	○	○	○	○
Carbón disulfide	◌	◌	◌	◌	◌	◌	◌	○	●
Carbon monoxide 150°F (65°C)	●	●	●	●	●		●	○	○
Carbon tetrachloride	◌	◌	◌	●	◌	◌	◌	○	○
Castor oil	○	○	○	○	○	○	○	○	○
Cellosolve acetate	○	○	◌	◌	○		○	●	○
CFC-12	◌	◌	○	○	○		○	○	
China wood oil, tung oil	◌	◌	○	○	○	○	○	●	○
Chlorine, dry/wet	◌	◌	◌	◌	◌	◌	◌	●	○
Chlorinated solvents	◌	◌	◌	◌	◌	◌	◌	●	○
Chloroacetic acid	◌	●	●	●	◌	○		◌	○
Chlorobenzene	◌			◌	◌	◌	◌	○	○
Chlorobutane	◌				◌	◌	◌	○	○
Chloroform	◌	◌		◌	◌	◌	◌	○	○
Chlorosulfonic acid	◌	◌	●	●	◌	◌	◌	◌	○
Chromic acid	◌	◌	◌	◌	●	○		●	○
Citric acid	○	○	○	○	○	○	○	○	○
Coke oven gas	●	●	●	●	●	○		◌	●
Copper chloride 150°F (65ºC)	●	○	○	○	○	○	○	○	○
Copper sulfate 150ºF (65°C)	●	○	○	○	○	○	○	○	○
Corn oil	◌	●	○	○	○	○	●	○	○
Cottonseed oil	◌	●	○	○	○	○	●	○	○
Creosote, coal tar	◌	◌	○	○	◌	○	◌	○	○
Creosols, cresylic acid	●	◌	◌	●	●	○	◌		○
Chromic acid	◌			◌	○	○	○	○	○
Cyclohexane	◌			○	◌	◌	◌	○	○
Cyclohexanol	○			○	○	○	○	○	○
Cyclohexanone	◌			◌		◌		◌	○
Cyclohexanolamine	◌			◌		◌		◌	○
Dibutyl ketone	◌			◌	○	◌	○	◌	○
Dichlorobenzene	◌	◌	◌	◌	◌	◌	◌	○	◌
Dichloroethylene	◌	◌	◌	◌	◌	◌	◌	○	●
Diesel fuel	◌	◌	◌	○	◌	○	◌	○	○
Diethanolamine 20%	●	◌			○	◌	○	◌	○
Diethylamine	○	○	○	●	○	◌	○	◌	○
Diisopropylamine	○			○		●			○
Dimethylamine	◌			◌		◌			○
Dimethylformamide	○		◌	○	○	○		◌	○
Dimethylsulphoxide	◌		◌	○	◌	○			
Dioctylphthalate	◌	◌	◌	◌	○	◌	○	○	○
Ethers	●	●	●	●	●	○	◌	◌	○
Ethyl acetate	○	◌	◌	◌	○	◌	○	◌	○
Ethyl alcohol	○	○	○	○	○	○	○	○	○
Ethyl cellulose	○	○	○	○	○		○	◌	○
Ethyl chloride	○	○	○	◌	○	○	○	○	○
Ethylene glycol	○	○	○	○	○	○	○	○	○
Ferric chloride 150°F (65ºC)	○	○	○	○	○	○	○		○
Ferric sulfate 150ºF (65ºC)	○	○	○	○	○	○	○	○	○
Formaldehyde	○	○	●	○	○	○	○	○	○
Formic acid	○	○	●	○	○	○	○	◌	○
Fuel oil	◌	◌	○	○	◌	○	◌	○	○
Furfural	◌	●	●	◌	○	○	●	◌	○
Gasoline unleaded	◌	◌	◌	○	◌	◌	◌	○	○
Gasoline + MTBE	◌	◌	◌	○	◌	◌		○	○
Hi Test+MTBE	◌	◌	◌	○	◌	◌	◌	○	○
Gelatin	○	○	○	○	○	○	○	○	○
Glucose	○	○	○	○	○	○	○	○	○
Glue	○	○	○	○	○	○	○	●	○
Glycerin, glycerol	○	○	○	○	○	○	○	○	○
Green sulfate liquor	○	○	○	○	○	○	○	○	○
HFC--134A	○	◌	○	○	○	○	○	◌	○

This Chemicals list is only meant as a guide, and is subject to change.

21 January 2021

CHEMICAL RESISTANCES

NR Natural
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

SBR Styrene-butadiene
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

CR Chloroprene
Excellent ozoneand ageing properties.
Flame retarding.
Good resistance to petroleum based fluids.
Good physical properties.

NBR
Acrylonitrile-butadiene
Exceltent resistance to oils.
Good physical properties.

IIR
Butyl
Good weathering resistance.
Low permeability to air.
Good physical properties.
Poor resistance to oils.

CSM
Hypalon (Chlorosulfonyl-polyethylene)
Excellent ozone and ageing properties.
Good heat and abrasión resistance.
Good resistance to petroleum based fluids.

EPDM
Ethylene-propyiene-diene-terpolymer
Excellent ozone, chemical and ageing properties.
Good heat resistance.
Poor resistance to oils.

FKM
Viton (Fluoroelastomer)
Excellent high temperature resistance.
Very good chemical and oil resistance.

XLPE
Cross Linked Polyethylene
Excellent resistance to most solvents and chemicals.

○	Valid
●	Discontinuous use
○	Not valid
	No data

Material	NR	SBR	CR	NBR	IIR	CSM	EPDM	FKM	XLPE
Petroleum hydraulic fluids	○	○	○	○	○	○	○		
Phosphate ester alkyl	○	○	●	○	○	○	○		
Phosphate ester aryl	○	○	○	○	●	○	●		
Phosphate ester blends	○	○	○	○	○	○	●		
Silicate ester	○	○	●	●	○	●	○		
Water glycol	○	○	○	○	○	○	○	○	
Hydrobromic acid	●	○	●	●	○	○	○	○	
Hydrochloric acid	○	○	○	○	●	●	●	○	○
Hydrocyanic acid	○	○	●	○	●	○	●	○	○
Hydrofluoric acid	○	○	○	○	●	○	●	○	○
Hydrofluosilicic acid	○	○	○	○	○		○	○	
Hydrogen cyanide	○	○		○	○	○	○	○	○
Hydrogen gas	○	○	○	○	○		○	○	○
Hydrogen peroxide	○	○	●	●	●	●	●	○	
Hydrogen sulfide. dry	●	●	○	●	○	○	○	○	○
Hydrogen sulfide. wet	●	●	○	●	○	○	○	●	○
Isobutyl alcohol	○	○	○	○	○	○	○	○	○
Isopropyl alcohol	○	○	○	○	○	○	○	○	○
Isooctane	○	○	○	○	○	○	○	○	○
Kerosene	○	○	○	○	○	●	○	○	○
Lacquers	○	○	○	○	●	○	○	○	○
Lacquers solvents	○	○	○	○	●	○	○	○	○
Lactic acid	●	●	●	●	●	○	●	○	○
Linseed oil	●	○	○	○	○	○	○	○	○
Lubricating oil, crude	○	○	○	○	○	●	○	○	○
Lubricating oil, refined	○	○	○	○	○	●	○		○
Magnesium chloride 150ºF (65°C)	○	○	○	○	○	○	○	○	○
Magnesium hydroxide 150ºF (65°C)	○	○	○	○	○	○	○	○	○
Magnesium sulfate 150ºF (65ºC)	○	○	○	○	○	○	○	○	○
Mercuric chloride	○	○	●	○	○	○	○	○	○
Mercury	○	○	○	○	○	○	○	○	○
Methyl alcohols methanol	○	○	○	○	○	○	○	●	○
Methyl acrylate	○			○	○	○	○	○	○
Methyl chloride	●	●	●	●	●	○	●	○	○
Methyl ethyl ketone	○	○	○	○	○	●	○	○	○
Methyl isopropyl ketone	○	○	○	○	○	●	●	○	○
MTBE									○
Milk	●	●	○	○	○	○	○	○	○
Mineral oils	○	●	○	○	○	○	○	○	○
Naphtha	○				○	○	○	○	○
Naphthalene	○			○	○	○	○	○	○
Natural gas	●	●	○	○	●	○	○	○	○
Nickel chloride 150°F (65°C)	○	○	○	○	○	○	○	○	○
Nickel sulfate 150°F (65ºC)	○	○	○	○	○	○	○	○	○
Nitric acid, crude	○	○	○	○	●	●	○	●	○
Nitricacid, Diluted 10%	○	○	●	○	●	○	●	●	
Nitric acid, Concentrated 70%	○	○	○	○	●	●	○	●	○
Nitrobenzene	○	○	○	○	○	○	○	○	○
Nitrogen gas	○			○	○	○	○	○	○
Octane	○			○	○	●	○	○	
Oleic acid	○	○	●	○	○	○	○	●	○
Oleum	○	●	●	●				●	
Oxalic acid	○	●	○	○	○	○	○	○	○
Ozone gas	○			○	○	○	○	○	
Oxygen	○	●	○	●	○		○	○	○
Palmitic acid	○	○	○	○	○	○	○	○	○
Pentane	○	○		○	○	●	○	○	○
Perchlorethylene	○	○	○	●	○	○	○	○	○
Petroleum oils and crude 200°F (95°C)	○	○	○	○	○	●	○	○	○
Phenol	○			○	○	○	○	○	○
Phosphoric acid crude	○	●	●	●	●	○	●	○	○
Phosphoric acid pure 45%	○	●	●	●	●	○	●	○	○
Phthalic acid 50%	○	○		○	○	○	○	○	○
Picric acid, molten	●	●	●	●	●				
Picric acid, water solution	○	●	○	○	○	○		○	
Potassium chloride	○	○	○	○	○	○	○	○	○
Potassium cyanide	○	○	○	○	○	○	○	○	○

This Chemicals list is only meant as a guide, and is subject to change.

21 January 2021

CHEMICAL RESISTANCES

NR Natural
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

SBR Styrene-butadiene
Excellent physical properties.
Excellent abrasión resistance.
Poor resistance to oils.

CR Chloroprene
Excellent ozoneand ageing properties.
Flame retarding.
Good resistance to petroleum based fluids.
Good physical properties.

NBR
Acrylonitrile-butadiene
Exceltent resistance to oils.
Good physical properties.

IIR
Butyl
Good weathering resistance.
Low permeability to air.
Good physical properties.
Poor resistance to oils.

CSM
Hypalon (Chlorosulfonyl-polyethylene)
Excellent ozone and ageing properties.
Good heat and abrasión resistance.
Good resistance to petroleum based fluids.

EPDM
Ethylene-propyiene-diene-terpolymer
Excellent ozone, chemical and ageing properties.
Good heat resistance.
Poor resistance to oils.

FKM
Viton (Fluoroelastomer)
Excellent high temperature resistance.
Very good chemical and oil resistance.

XLPE
Cross Linked Polyethylene
Excellent resistance to most solvents and chemicals.

○	Valid
●	Discontinuous use
●	Not valid
	No data

Material	NR	SBR	CR	NBR	IIR	CSM	EPDM	FKM	XLPE
Potassium hydroxide	○	○	●	●	○	○	○	●	○
Potassium sulfate	○	○	○	○	○	○	○	○	○
Propane	●	●	○	○	●	○	●	○	○
Propylene glycol	○			○	○	○	○	○	○
Pyridine	●			●	●	●	●	●	○
Sewage	●	●	○	○	●	○	●	○	○
Silicon oil	○			○	○	○	○	○	○
Soap solutions	○	○	○	○	○	○	○	○	○
Soda ash sodium carbonate	○	○	○	○	○	○	○	○	○
Sodium bicarbonate, baking soda	○	○	○	○	○	○	○	○	○
Sodium bisulfate	○	○	○	○	○	○	○	○	○
Sodium chloride	○	○	○	○	○	○	○	○	○
Sodium cyanide	○	○	○	○	○	○	○	○	○
Sodium hydroxide	○	○	●	●	○	●	○	●	○
Sodium hypochlorite	●	●	●	●	○	○	○	○	○
Sodium metaphosphate	○	○	●	○	○	○	○	○	○
Sodium nitrate	●	●	●	●	○	○	○		○
Sodium perborate	●	●	●	●	○	○	○	○	○
Sodium peroxide	●	●	●	●	○	○	○	○	○
Sodium phosphate, monobasic	○	○	●	○	○	○	○	○	○
Sodium phosphate, dibasic	○	○	●	○	○	○	○		○
Sodium phosphate, tribasic	○	○	●	○	○	○	○		○
Sodium silicate	○	○	○	○	○	○	○	○	○
Sodium sulfate	○	○	○	○	○	○	○	○	○
Sodium sulfide	○	○	○	○	○	○	○	○	○
Sodium thiosulfate, "hypo"	○	○	○	○	○	○	○	○	○
Soybean oil	●	●	○	○	○	○	○	○	○
Stannic chloride	○	○	○	○	○	○	○	○	○
Steam 450° F(230°C)	●	●	●	●	●	●	○		●
Stearic acid	●	●	●	○	○	●	○		○
Sulfur	○	○	○	○	○	○	○	○	●
Sulfur chloride	●	●	●	●	●	○	●	○	○
Sulfur dioxide, dry	●	●	●	●	●	○	●	○	
Sulfur trioxide, dry	●	●	●	●	●	○	●	○	
Sulfuric acid, 10%	○	○	○	○	○	○	○	○	○
Sulfuric acid, 11% - 75%	●	●	●	●	○	○	●	○	○
Sulfuric acid, 76% - 95%	●	●	●	●	●	○	●	○	○
Sulfuric acid, fuming	●	●	●	●	●	●	●	○	●
Sulfurous acid	●	●	●	●	●	○	●	○	○
Tannic acid	○	●	○	●	○	○	○	○	○
Tar	●	●	●	●	●	●	●	○	●
Tartaric acid	○	●	●	●	○	○	○	○	○
Tetrachloroetane	●			●	●	●	●	○	○
Tetrachloromethane	●			●	●	●	●	○	○
Thiophene	●			●	●	●	●	○	○
Toluene, Toluol	●	●	●	●	●	●	●	○	○
Trichloroethylene	●	●	●	●	●	●	●	○	○
Triethanolamine	○			○	○	○	○	●	○
Turpentine	●	●	●	●	●	●	●	○	○
Urea, water solution	○		○	○	○	○	○		○
Vaseline	○	○		○	○	○	○	○	○
Vinegar	●	●	●	●	○	○	○	○	○
Vinyl acetate	●	●	●	●	○	●	○	○	
Vinyl chloride	●			●	●	●	●	○	○
Water, acid mine	○	○	●	○	○	○	○	○	○
Water, fresh	○	○	●	○	○	○	○	○	○
Water, distilled	○	○	●	○	○	○	○	○	○
Whiskey and wines	○	○	○	●	○	○	○	○	○
Xylene. Xylol	●	●	●	●	●	●	●	○	○
Zinc chloride	●	●	●	●	○	○	○	○	○
Zinc sulfate	○	○	○	○	○	○	○	○	○

This Chemicals list is only meant as a guide, and is subject to change.

21 January 2021