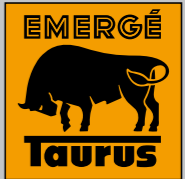




Technical information

Chemical resistance chart



Material	NR or IR		SBR CR		EPM NBR EPDM /PVC	
	IR	SBR	CR	NBR	EPDM	NBR /PVC

[Maximum Temperature 100°F (38°C) Unless Otherwise Specified]

Acetic Acid, Dilute, 10%	F	C	C	X	A	X
Glacial	C	X	X	X	F	X
Anhydride	C	C	F	F	I	F
Acetone	A	A	F	X	A	X
Acetylene	A	A	F	A	A	A
Air 150°F (65°C)	A	A	A	A	A	A
Aluminium Chloride 150°F (65°C)	A	A	A	A	A	A
Aluminium Fluoride 150°F (65°C)	A	A	A	A	A	A
Aluminium Sulfate 150°F (65°C)	A	A	A	A	A	A
Alums 150°F (65°C)	A	A	A	A	A	A
Ammonia Gas	A	A	A	A	A	A
Ammonium Chloride	A	A	A	A	A	A
Ammonium Hydroxide	C	F	F	F	A	C
Ammonium Nitrate	A	A	A	A	A	A
Ammonium Phosphate monobasic	A	A	A	A	A	A
dibasic	A	A	A	A	A	A
tribasic	A	A	A	A	A	A
Ammonium Sulfate	A	A	A	A	A	A
Amyl Acetate	F	F	X	X	A	X
Amyl Alcohol	A	A	A	A	A	A
Aniline, Aniline Oil	X	X	C	X	C	X
Aniline Dyes	F	F	F	F	C	F
Asphalt	X	X	F	F	X	F
Barium Chloride 150°F (65°C)	A	A	A	A	A	A
Barium Hydroxide 150°F (65°C)	A	A	A	A	A	A
Barium Sulfide 150°F (65°C)	A	A	A	A	A	A
Beer	A	A	A	A	A	A
Beet Sugar Liquors	A	A	A	A	A	A
Benzene, Benzol	X	X	X	X	X	X
Benzine, petroleum ether and Benzene, petroleum naphtha	X	X	C	F	X	F
Black Sulfate Liquor	A	A	A	A	A	A
Blast Furnace Gas	C	C	A	C	C	C
Borax	A	A	A	A	A	A
Boric Acid	A	A	A	A	A	A
Bromine	X	X	X	X	X	X
Butane	X	X	F	A	X	A
Butyl Acetate	C	X	X	X	F	X
Butyl alcohol, butano	A	A	A	A	A	A
Calcium bisulfate	C	C	A	A	F	A
Calcium chloride	A	A	A	A	A	A
Calcium hydroxide	A	A	A	A	A	A
Calcium hyperchlorite	X	X	X	X	A	X
Caliche liquors	A	A	A	A	A	A
Cane sugar liquors	A	A	A	A	A	A
Carobic acid, phenol	C	C	C	C	A	C
Carbon dioxide, dry/wet	A	A	A	A	A	A
Carbon disulfide	X	X	X	X	X	X
Carbon monoxide 150°F (65°C)	C	C	C	C	C	A

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Carbon tetrachloride	X	X	X	X	X	X
Castor oil	A	A	A	A	A	A
Cellosolve acetate	F	F	X	X	A	X
CFC-12	X	X	A	A	F	A
China wood oil, tung oil	X	X	F	A	A	A
Chlorine, dry/wet	X	X	X	X	X	X
Chlorinated solvents	X	X	X	X	X	X
Chloroacetic acid	X	C	C	C	I	C
Chlorosulfonic acid	X	X	C	C	X	C
Chromic acid	X	X	X	X	I	X
Citric acid	A	A	A	F	A	F
Coke oven gas	C	C	C	C		C
Copper chloride 150°F (65°C)	C	A	F	A	A	A
Copper sulfate 150°F (65°C)	C	A	A	A	A	A
Corn oil	X	C	F	A	C	A
Cottonseed oil	X	C	F	A	C	A
Creosote, coal tar wood	X	X	F	A	X	A
Creosols, cresylic acid	C	X	X	C	X	C
Ethers	C	C	C	C	X	C
Ethyl acetate	F	X	X	X	F	X
Ethyl alcohol	A	A	A	A	A	A
Ethyl cellulose	F	F	F	F	F	F
Ethyl chloride	A	F	F	X	A	X
Ethylene glycol	A	A	A	A	A	A
Ferric chloride 150°F (65°C)	A	A	A	A	A	A
Ferric Sulfate 150°F (65°C)	A	A	A	A	A	A
Formaldehyde	A	A	C	A	A	A
Formic acid	A	A	C	F	A	F
Fuel oil	X	X	A	A	X	A
Furfural	X	C	C	X	C	X
Gasoline, Non Leaded	X	X	X	A	X	A
Gasoline, +MTBE	X	X	X	A	X	A
Hi Test-+MTBE	X	X	X	A	X	A
Gelatin	A	A	A	A	A	A
Glucose	A	A	A	A	A	A
Glue	F	F	A	A	A	A
Glycerine, glycerol	A	A	A	A	A	A
Green sulfate liquor	A	A	A	A	A	A
HFC-134A	F	X	A	A	A	A
Hydraulic fluids						
Petroleum	X	X	A	A	X	A
Phosphate ester alkyl	X	X	C	X	A	X
Phosphate ester aryl	X	X	X	X	C	X
Phosphate ester blends	X	X	X	X	C	X
Silicate ester	X	X	C	C	X	C
Water-Glycol	A	A	A	A	A	A
Hydrobromic acid	C	X	C	C	A	C
Hydrochlorid acid	A	X	X	X	C	X
Hydrocyanic acid	F	F	C	F	C	F
Hydrofluoric acid	X	X	X	X	C	X

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	IR	SBR	CR	NBR	EPDM	NBR /PVC

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Hydrofluosilicic acid	A	F	F	F	A	F
Hydrogen gas	F	F	A	A	A	A
Hydrogen peroxide	X	X	C	C	C	C
Hydrogen sulfide, dry wet	C	C	F	C	A	C
Kerosene	X	X	F	A	X	A
Lacquers	X	X	X	X	X	X
Lacquers solvents	X	X	X	X	X	X
Lactic acid	C	C	C	C	C	C
Linseed oil	C	X	F	A	A	A
Lubricating oil, crude refined	X	X	F	A	X	A
Magnesium chloride 150°F (65°C)	A	A	A	A	A	A
Magnesium hydroxide 150°F (65°C)	A	F	F	F	A	F
Magnesium sulfate 150°F (65°C)	A	A	A	A	A	A
Mercuric chloride	F	F	C	F	A	F
Mercury	A	A	A	A	A	A
Methyl alcohol, methanol	A	A	A	A	A	A
Methyl chloride	C	C	C	C	C	C
Methyl ethyl ketone	X	X	X	X	A	X
Methyl isopropyl ketone	X	X	X	X	C	X
MTBE	C	C	F	F	A	F
Milk	X	C	F	A	X	A
Mineral oils	C	C	A	A	X	A
Natural gas	C	C	A	A	X	A
Nickel chloride 150°F (65°C)	A	A	A	A	A	A
Nickel sulfate 150°F (65°C)	A	A	A	A	A	A
Nitric acid, crude Diluted 10%	X	X	X	X	X	X
Concentrated 70%	X	X	X	X	X	X
Nitrobenzene	X	X	X	X	X	X
Oleic acid	X	F	C	F	F	F
Oleum spirits	X	C	C	C	I	C
Oxalic acid	F	C	F	F	A	F
Oxygen	F	C	A	C	A	C
Palmitic acid	X	F	A	A	F	A
Perchlorethylene	X	X	X	C	X	C
Petroleum oils and crude 200°F (95°C)	X	X	F	A	X	A
Phosphoric acid, crude pure 45%	A	C	C	C	C	C
Picric acid, molten water solution	C	C	C	C	I	C
water solution	A	C	F	F	I	F
Potassium chloride	A	A	A	A	A	A
Potassium cyanide	A	A	A	A	A	A
Potassium hydroxide F	F	C	C	A	C	
Potassium sulfate	A	A	A	A	A	A
Propane	X	X	F	A	X	A
Sewage	C	C	F	A	C	A
Soap solutions	A	A	F	A	A	A
Soda ash, sodium carbonate	A	A	A	A	A	A
Sodium bicarbonate, baking soda	A	A	A	A	A	A

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	IR	SBR	CR	NBR	EPDM	NBR /PVC

[Maximum Temperature 100°F (38°C) Unless Otherwise Specified]

Sodium bisulfate	A	A	A	A	A	A
Sodium chloride	A	A	A	A	A	A
Sodium cyanide	A	A	A	A	A	A
Sodium hydroxide	F	F	C	C	A	C
Sodium hypochlorite	X	X	X	X	A	X
Sodium metaphosphate	A	A	C	A	A	A
Sodium nitrate	C	C	C	C	A	C
Sodium perborate	C	C	C	C	A	C
Sodium peroxide	C	C	C	C	A	C
Sodium phosphate, monobasic dibasic tribasic	A	F	C	F	A	F
Sodium silicate	A	A	A	A	A	A
Sodium sulfate	A	A	A	A	A	A
Sodium sulfide	A	A	A	A	A	A
Sodium thiosulfate, "hypo"	A	A	A	A	A	A
Soybean oil	X	C	F	A	A	A
Stannic chloride	A	A	A	A	F	A
Steam 450°F (230°C)	C	C	C	C	F	C
Stearic acid	X	X	C	F	F	F
Sulfur	F	F	A	F	A	F
Sulfur chloride	X	X	C	C	X	C
Sulfur dioxide, dry	C	C	C	C	C	C
Sulfur trioxide, dry	X	C	C	C	C	C
Sulfuric acid, 10%	A	A	A	A	A	A
11%-75%	C	C	C	C	C	C
76%-95%	X	X	X	X	X	X
fuming	X	X	X	X	X	X
Sulfurous acid	C	C	C	C	C	C
Tannic acid	A	C	A	C	A	C
Tar	X	X	C	C	X	C
Tartaric acid	A	C	C	C	F	C
Toluene, toluol	X	X	X	C	X	X
Trichloroethylene	X	X	X	X	X	X
Turpentine	X	X	X	F	X	F
Vinegar	C	C	C	C	A	C
Water, acid mine	A	A	C	A	A	A
Water, fresh distilled	A	A	C	A	A	A
Whiskey and wine	A	A	A	C	A	C
Xylene, xylol	X	X	X	C	X	C
Zinc chloride	C	C	C	C	A	C
Zinc sulfate	A	A	A	A	A	A

A – Good Resistance, usually suitable for service.
F – Fair Resistance, the 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.
X – Not Recommended, unsuitable for service.
I – Insufficient Information, not enough data available at the time of publication to determine rating.