



POLYMERS CHEMICAL RESISTANCE CHART *

| | NATURAL RUBBER | SBR | CHLOROPRENE | NITRILE | BUTYL | HYPALON® | EPDM | EPM | SILICONE | VITON® | CROSS-LINKED POLYETHYLENE | ULTRA-HIGH-MOLECULAR WEIGHT POLYETHYLENE | TEFLON® |
|--|----------------|-----|-------------|---------|-------|----------|------|-----|----------|--------|---------------------------|--|---------|
| | NR | SBR | CR | NBR | BIIR | CSM | EPDM | EPM | VMQ | FKM | XLPE | UHMWPE | PTFE |
| Acetic acid, dilute, 10% | B | C | C | C | A | C | A | A | B | B | A | A | A |
| Acetic acid glacial | C | X | X | X | B | C | B | A | C | X | A | A | A |
| Acetic acid anhydride | C | C | B | B | B | A | I | B | I | X | A | A | A |
| Acetone | B | C | B | X | A | B | A | A | X | X | A | A | A |
| Acetylene | A | A | B | A | A | B | A | A | C | A | A | A | A |
| Air 68°F (20°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Air 150°F (65°C) | A | A | A | A | A | A | A | A | A | I | A | A | A |
| Aluminium chloride 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Aluminium fluoride 150°F (65°C) | A | A | A | A | A | A | A | A | B | I | A | A | A |
| Aluminium sulfate 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Alums 150°F (65°C) | A | A | A | A | A | A | A | A | A | I | A | A | A |
| Ammonia gas, anhydrous | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Ammonia 10%water solution | B | B | B | A | A | A | A | A | A | A | A | A | A |
| Ammonia 30%water solution | B | B | B | A | A | B | A | A | C | A | A | A | A |
| Ammonium chloride | A | A | A | A | A | A | A | A | C | A | A | A | A |
| Ammonium hydroxide | C | B | B | B | A | A | A | A | C | B | A | A | A |
| Ammonium nitrate | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Ammonium phosphate monobasic | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Ammonium phosphate dibasic | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Ammonium phosphate tribasic | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Ammonium sulfate | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Amyl acetate | B | X | X | X | B | X | A | B | X | X | A | A | A |
| Amyl alcohol | A | A | A | A | A | A | A | A | X | A | A | A | A |
| Aniline, Aniline oil | X | X | C | X | A | X | C | B | X | A | A | A | A |
| Aniline, dyes | B | B | B | X | A | B | C | A | X | B | A | A | A |
| Asphalt | X | X | B | B | X | B | X | X | I | A | A | A | A |
| Barium chloride 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Barium hydroxide 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Barium sulfide 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Beer | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Beet sugar liquors | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Benzene, Benzol | X | X | X | X | X | X | X | X | X | A | A | A | A |
| Benzene, petroleum ether | I | I | I | I | I | I | I | I | X | A | I | B | A |
| Benzene, petroleum naphtha | X | X | C | A | X | B | X | X | X | A | A | B | A |
| Black sulfate liquor | A | A | A | A | A | A | A | A | A | I | A | A | A |
| Blast furnace gas | C | C | A | C | C | C | C | C | A | A | A | A | A |
| Borax | A | A | A | A | A | A | A | A | B | A | A | A | A |
| Boric acid | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Bromine | X | X | X | X | X | C | X | X | X | A | X | X | A |
| Butane | X | X | A | A | X | A | X | X | X | A | A | A | A |
| Butyl acetate | X | X | X | X | B | X | B | B | X | X | A | A | A |
| Butyl alcohol, Butanol | A | A | A | A | A | A | A | A | C | A | A | A | A |
| Calcium bisulfate | C | C | A | A | B | A | B | A | C | A | A | A | A |
| Calcium chloride | A | A | A | A | A | A | A | A | A | A | A | A | A |



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| | NR | SBR | CR | NBR | BIIR | CSM | EPDM | EPM | VMQ | FKM | XLPE | UHMWPE | PTFE |
| Calcium hydroxide | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Calcium hypochlorite | X | X | X | X | A | B | A | A | C | A | A | A | A |
| Caliche liquors | A | A | A | A | A | A | A | A | B | A | A | A | A |
| Cane sugar liquors | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Carbolic acid, phenol | C | C | C | C | C | C | A | A | X | A | A | A | A |
| Carbon dioxide, dry-wet | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Carbon disulfide | X | X | X | X | X | X | X | X | X | A | C | C | A |
| Carbon monoxide | 140°F (60°C) | C | C | C | C | C | B | C | A | A | A | A | A |
| Carbon tetrachloride | X | X | X | C | X | X | X | X | X | A | A | C | A |
| Castor oil | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Cellosolve acetate | B | B | X | X | A | I | A | A | X | X | A | A | A |
| CFC-12 | X | X | A | A | B | I | B | C | I | C | I | I | A |
| China wood oil, tung oil | X | X | B | A | A | B | A | C | X | A | A | A | A |
| Chlorine, dry/wet | X | X | X | X | X | C | X | X | X | B | C | X | A |
| Chlorinated solvents | X | X | X | X | X | X | X | X | X | A | A | B | A |
| Chloroacetic acid | X | C | C | C | X | A | I | A | I | X | A | A | A |
| Chlorosulfonic acid | X | X | C | C | X | X | X | X | X | X | C | X | A |
| Chromic acid | X | X | X | X | C | A | I | I | C | A | A | C | A |
| Citric acid | A | A | A | B | A | A | A | A | A | A | A | A | A |
| Coke oven gas | X | X | X | X | X | A | I | I | B | A | A | X | A |
| Copper chloride | 150°F (65°C) | C | A | B | A | A | B | A | A | A | A | A | A |
| Copper sulfate | 150°F (65°C) | C | A | A | A | B | A | A | A | A | A | A | A |
| Corn oil | X | C | B | A | A | B | C | C | A | A | A | A | A |
| Cottonseed oil | X | C | B | A | A | B | C | C | A | A | A | A | A |
| Creosote, coal tar | X | X | B | A | X | B | X | X | C | A | A | A | A |
| Creosote, coal tar wood | X | X | B | A | X | I | X | X | X | A | A | A | A |
| Creosols, cresylic acid | C | X | X | C | C | B | X | X | I | A | A | B | A |
| Dichlorobenzene | X | X | X | X | X | X | X | X | X | A | X | C | A |
| Dichloroethylene | X | X | X | X | X | X | X | X | X | A | C | X | A |
| Diesel fuel | X | X | C | A | X | B | X | X | X | A | B | B | A |
| Diethanolamine 20% | C | X | I | I | A | X | A | A | X | X | A | A | A |
| Diethylamine | B | B | B | C | B | C | B | B | B | X | A | A | A |
| Diisopropylamine | B | I | I | B | I | C | I | I | I | I | A | A | A |
| Diethylphthalate | X | X | X | X | B | X | B | A | X | A | A | A | A |
| Ethers | X | X | X | X | X | X | C | B | X | X | A | B | A |
| Ethyl acetate | X | X | X | X | B | X | B | A | B | X | A | A | A |
| Ethyl alcohol | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Ethyl cellulose | B | B | B | B | B | I | B | B | C | X | A | A | A |
| Ethyl chloride | X | X | X | X | B | X | C | C | C | A | A | C | A |
| Ethyl glycol | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Ferric chloride | 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A |
| Ferric sulfate | 150°F (65°C) | A | A | A | A | A | A | A | B | A | A | A | A |
| Formaldehyde | B | B | B | C | A | A | A | A | B | X | A | A | A |
| Formic acid | A | A | C | B | A | A | A | A | C | X | A | A | A |



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| | NR | SBR | CR | NBR | BIIR | CSM | EPDM | EPM | VMQ | FKM | XLPE | UHMWPE | PTFE | |
| Fuel oil | X | X | A | A | X | B | X | X | X | A | A | A | A | |
| Furfural | X | C | C | X | A | B | C | B | X | X | A | I | A | |
| Gasoline, unleaded | X | X | X | A | X | C | X | X | X | A | A | B | A | |
| Gasoline + MTBE | X | X | X | A | X | C | X | X | X | A | A | B | A | |
| Gasoline Hi Test + MTBE | X | X | X | A | X | C | X | X | X | A | A | B | A | |
| Gelatin | A | A | A | A | A | A | A | A | A | A | A | A | A | |
| Glucose | A | A | A | A | A | A | A | A | A | A | A | A | A | |
| Glue | B | B | A | A | B | A | A | A | A | A | A | A | A | |
| Glycerine, glycerol | A | A | A | A | A | A | A | A | A | A | A | A | A | |
| Green sulfate liquor | A | A | A | A | A | A | A | A | A | A | A | A | A | |
| HFC-134A | B | X | A | A | A | B | A | A | I | X | A | I | A | |
| Hidraulic fluids: Petroleum | X | X | B | A | X | B | X | X | C | A | I | A | A | |
| Hidraulic fluids: Phosphate ester alkyl | X | X | C | X | A | X | A | A | X | I | I | I | A | |
| Hidraulic fluids: Phosphate ester aryl | X | X | X | X | C | X | C | C | X | I | I | I | A | |
| Hidraulic fluids: Phosphate ester blends | X | X | X | X | X | X | C | C | X | A | I | I | A | |
| Hidraulic fluids: Silicate ester | X | X | C | C | X | C | X | X | X | A | I | I | A | |
| Hidraulic fluids: Water glycol | A | A | A | A | A | A | A | A | A | A | I | A | A | |
| Hydrobromic acid | C | X | C | C | A | A | A | A | X | A | I | A | A | |
| Hydrochloric acid | B | B | B | C | B | B | B | A | X | A | A | A | A | |
| Hydrocyanic acid | B | B | C | B | C | A | C | B | B | A | A | A | A | |
| Hydrofluoric acid | X | X | X | X | C | A | B | B | X | X | A | B | A | |
| Hydrofluosilicic acid | A | B | B | B | A | I | A | A | I | A | I | A | A | |
| Hydrogen gas | 140°F (60°C) | B | A | A | A | A | I | A | A | C | A | A | A | |
| Hydrogen peroxide | | X | X | C | C | C | C | C | B | A | A | I | C | A |
| Hydrogen sulfide, dry | | C | C | B | C | A | A | A | A | X | X | A | A | A |
| Hydrogen sulfide, wet | | C | C | B | C | A | A | A | A | X | X | A | A | A |
| Isobutyl alcohol | | A | A | A | B | A | A | A | A | A | A | A | A | A |
| Isopropyl alcohol | | A | A | A | B | A | A | A | A | A | A | A | A | A |
| Isooctane | | X | X | B | A | X | A | X | X | X | A | A | A | A |
| Kerosene | | X | X | B | A | X | C | X | X | X | A | A | A | A |
| Lacquers | | X | X | X | X | C | X | X | X | X | A | B | A | A |
| Lacquers solvents | | X | X | X | X | C | X | X | X | X | A | B | A | A |
| Lactic acid | | C | C | C | C | C | A | C | B | A | A | A | A | A |
| Linseed oil | | C | C | B | A | A | A | A | B | A | A | A | A | A |
| Lubricating oil, crude | | X | X | B | A | X | B | X | X | C | A | A | A | A |
| Lubricating oil, refined | | X | X | B | A | X | B | X | X | C | A | A | A | A |
| Magnesium chloride | 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Magnesium hydroxide | 150°F (65°C) | A | B | B | B | A | A | A | A | B | A | A | A | A |
| Magnesium sulfate | 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Mercuric chloride | | B | B | C | B | A | A | A | A | A | A | A | A | A |
| Mercury | | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Methyl alcohol, methanol | | A | A | A | A | A | A | A | A | B | A | A | A | A |
| Methyl chloride | | X | X | X | X | C | X | X | C | X | B | C | C | A |
| Methyl ethyl ketone | | X | X | X | X | B | X | A | A | X | X | A | A | A |



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| | NR | SBR | CR | NBR | BIIR | CSM | EPDM | EPM | VMQ | FKM | XLPE | UHMWPE | PTFE |
| Methyl isopropyl ketone | X | X | X | X | B | X | C | C | C | X | A | A | A |
| Milk | A | A | A | A | A | A | A | A | A | A | A | A | A |
| MTBE | I | I | I | I | I | I | I | I | I | X | A | I | I |
| Mineral oils | X | X | B | A | X | B | X | X | A | A | A | A | A |
| Natural gas | C | C | A | A | X | A | X | X | C | A | A | A | A |
| Nickel chloride | 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A |
| Nickel sulfate | 150°F (65°C) | A | A | A | A | A | A | A | A | A | A | A | A |
| Nitric acid, crude | X | X | X | X | X | C | X | X | X | B | X | I | A |
| Nitric acid, diluted 10% | X | X | B | X | B | A | C | A | C | A | A | A | A |
| Nitric acid, concentrated 70% | X | X | X | X | C | C | X | C | X | B | C | X | A |
| Nitrobenzene | X | X | X | X | X | X | X | X | C | B | A | A | A |
| Oleic acid | X | X | C | C | B | B | B | C | X | B | A | A | A |
| Oleum | X | C | C | C | X | B | X | C | I | A | X | X | A |
| Oxalic acid | B | C | B | B | A | A | A | A | B | A | A | A | A |
| Oxygen | B | C | A | C | A | A | A | A | X | B | A | A | A |
| Palmitic acid | X | B | A | A | B | B | B | B | X | A | A | A | A |
| Perchlorethylene | X | X | X | C | X | X | X | X | C | A | C | C | A |
| Petroleum oils and crude | 200°F (95°C) | X | X | B | A | X | C | X | X | B | C | X | A |
| Phosphoric acid, crude | C | C | C | C | C | A | B | A | C | A | A | A | A |
| Phosphoric acid, pure 45% | C | C | C | C | C | A | B | A | C | A | A | A | A |
| Picric acid, molten | C | C | C | C | C | I | I | I | X | A | C | X | A |
| Picric acid, water solution | A | C | B | B | A | A | I | I | I | A | A | A | A |
| Potassium chlorite | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Potassium cyanide | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Potassium hydroxide | B | B | C | X | A | A | A | A | C | X | A | A | A |
| Potassium sulfate | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Propane | X | X | B | A | X | B | X | X | X | A | A | A | A |
| Sewage | C | C | B | A | C | A | C | C | B | A | A | A | A |
| Soap solution | A | A | B | A | A | A | A | A | A | A | A | A | A |
| Soda ash, sodium carbonate | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Sodium bicarbonate, baking soda | A | 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 | A |
| Sodium chloride | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Sodium cyanide | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Sodium hydroxide | TO50% AT140°F | B | B | B | A | B | A | A | A | A | A | A | A |
| Sodium hypochlorite | X | X | C | C | A | B | A | A | B | A | A | C | A |
| Sodium metaphosphate | A | A | C | A | A | B | A | A | A | A | A | A | A |
| Sodium nitrate | B | B | B | B | A | A | A | A | X | A | A | A | A |
| Sodium perborate | B | B | B | B | A | A | A | A | B | A | A | A | A |
| Sodium peroxide | B | B | B | B | A | A | A | A | C | A | A | C | A |
| Sodium phosphate, monobasic | A | B | B | B | A | A | A | A | X | A | A | A | A |
| Sodium phosphate, dibasic | A | B | B | B | A | A | A | A | X | A | A | A | A |
| Sodium phosphate, tribasic | A | B | B | B | A | A | A | A | X | A | A | A | A |
| Sodium silicate | A | A | A | A | A | A | A | A | A | A | A | A | A |



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| Sodium sulfate | A | 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 | A |
| Sodium thiosulfate, "hypo" | A | A | A | A | A | A | A | A | I | A | A | A | A |
| Soybean oil | X | C | B | A | A | A | A | C | A | A | A | A | A |
| Stannic chloride | A | A | A | A | B | A | B | A | B | A | A | A | A |
| Steam 450°F (230°C) | X | X | X | X | B | X | B | B | I | X | X | X | A |
| Stearic acid | X | X | C | B | B | C | B | A | A | A | A | A | A |
| Sulfur | X | X | A | X | A | A | A | A | B | A | A | A | A |
| Sulfur chloride | X | X | C | C | X | A | X | X | C | A | A | I | A |
| Sulfur dioxide, dry | C | C | C | C | C | A | C | B | B | B | A | A | A |
| Sulfur trioxide, dry | X | C | C | C | C | B | C | B | B | A | X | X | A |
| Sulfuric acid, 10% | C | C | B | C | A | A | A | A | X | A | A | A | A |
| Sulfuric acid, 11% - 75% | X | X | X | X | B | A | C | A | X | A | A | A | A |
| Sulfuric acid, 76% - 95% | X | X | X | X | X | A | C | A | X | A | C | A | A |
| Sulfuric acid, fuming | X | X | X | X | X | X | X | X | X | A | X | X | A |
| Sulfurous acid | C | C | C | C | C | A | C | B | X | B | A | A | A |
| Tannic acid | A | C | A | C | A | A | A | A | B | A | A | A | A |
| Tar | X | X | C | C | X | C | X | X | B | A | X | I | A |
| Tartaric acid | A | C | C | C | B | A | B | B | A | A | A | A | A |
| Toluene, Toluol | X | X | X | X | X | X | X | X | X | A | C | C | A |
| Trichloroethylene | X | X | X | X | X | X | X | X | X | A | C | B | A |
| Turpentine | X | X | X | B | X | X | X | X | X | A | A | B | A |
| Urea, water solution | A | I | A | A | A | A | A | A | A | I | A | A | A |
| Vinegar | C | C | C | C | A | A | A | A | A | A | A | A | A |
| Vinyl acetate | X | X | X | X | A | X | B | A | X | X | I | A | A |
| Water, acid mine | A | A | B | A | A | A | A | A | A | A | A | A | A |
| Water, fresh | A | A | B | A | A | A | A | A | A | A | A | A | A |
| Water, distilled | A | A | B | A | A | A | A | A | A | A | A | A | A |
| Whiskey and wines | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Xylene, xylol | X | X | X | X | X | X | X | X | X | A | C | C | A |
| Zinc chloride | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Zinc sulfate | B | B | A | A | A | A | A | A | A | A | A | A | A |

Legend

| | | | | |
|-----------------|-----------------|-----------------|-----------------|--------------------------|
| A | B | C | X | I |
| GOOD RESISTANCE | FAIR RESISTANCE | POOR RESISTANCE | NOT RECOMMENDED | INSUFFICIENT INFORMATION |

Notice

*

The present tabulation is based on tests and on generally available sources, and believed to be reliable.

However, must be used as a guidance only since it does not take in consideration all variable that may be encountered in actual use, such as and not limited to: temperature, concentration pressure, duration of exposure, stability of the fluid and possible contamination.

All application should always be tested: the compound should always be tested with the chemical it is going to handle.

Please note: all data based on 21 °C (70 °F) unless noted.