



# 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 <b>68°F (20°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A	A
Air <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	I	A	A	A
Aluminium chloride <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A	A
Aluminium fluoride <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	B	I	A	A	A
Aluminium sulfate <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A	A
Alums <b>150°F (65°C)</b>	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 <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A	A
Barium hydroxide <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A	A
Barium sulfide <b>150°F (65°C)</b>	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
Benzine, petroleum ether	I	I	I	I	I	I	I	I	X	A	I	B	A
Benzine, 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



# 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
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	<b>140°F (60°C)</b>	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	<b>150°F (65°C)</b>	C	A	B	A	A	B	A	A	A	A	A	A
Copper sulfate	<b>150°F (65°C)</b>	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
Diocetylphthalate	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	<b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A
Ferric sulfate	<b>150°F (65°C)</b>	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



# 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
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
Hdraulic fluids: Petroleum	X	X	B	A	X	B	X	X	C	A	I	A	A
Hdraulic fluids: Phosphate ester alkyl	X	X	C	X	A	X	A	A	X	I	I	I	A
Hdraulic fluids: Phosphate ester aryl	X	X	X	X	C	X	C	C	X	I	I	I	A
Hdraulic fluids: Phosphate ester blends	X	X	X	X	X	X	C	C	X	A	I	I	A
Hdraulic fluids: Silicate ester	X	X	C	C	X	C	X	X	X	A	I	I	A
Hdraulic 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 <b>140°F (60°C)</b>	B	A	A	A	A	I	A	A	C	A	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	X	A	B	A
Lacquers solvents	X	X	X	X	C	X	X	X	X	X	A	B	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 <b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A	A
Magnesium hydroxide <b>150°F (65°C)</b>	A	B	B	B	A	A	A	A	B	A	A	A	A
Magnesium sulfate <b>150°F (65°C)</b>	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	A	B	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



# 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
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	<b>150°F (65°C)</b>	A	A	A	A	A	A	A	A	A	A	A	A
Nickel sulfate	<b>150°F (65°C)</b>	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
Perchloroethylene	X	X	X	C	X	X	X	X	C	A	C	C	A
Petroleum oils and crude	<b>200°F (95°C)</b>	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	<b>TO50% AT140°F</b>	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



# 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
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 <b>450°F (230°C)</b>	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

<b>A</b>	<b>B</b>	<b>C</b>	<b>X</b>	<b>I</b>
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.