

## TABELLA DELLE RESISTENZE CHIMICHE DEI POLIMERI\*

### 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	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE
Acetic acid, diluite, 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

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	NATURAL RUBBER	SBR	CHLOROPRENE	NITRILE	BUTYL	hypalon®	EPDM	EPM	silicone	viton®	CROSS-LINKED POLYETHYLENE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE	teflon®
	NR	SBR	CR	NBR	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE
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
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	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

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	NR	SBR	CR	NBR	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE
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	A
Copper sulfate 150°F (65°C)	C	A	A	A	B	A	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
Dioctylphthalate	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	A
Ferric sulfate 150°F (65°C)	A	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
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

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	NATURAL RUBBER	SBR	CHLOROPRENE	NITRILE	BUTYL	hypalon®	EPDM	EPM	silicone	viton®	CROSS-LINKED POLYETHYLENE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE	teflon®
	NR	SBR	CR	NBR	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE
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	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

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		NATURAL RUBBER	SBR	CHLOROPRENE	NITRILE	BUTYL	hypalon®	EPDM	EPM	silicone	viton®	CROSS-LINKED POLYETHYLENE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE	teflon®
		NR	SBR	CR	NBR	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE
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	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	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
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	A
Nickel sulfate	150°F (65°C)	A	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

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	NR	SBR	CR	NBR	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE	
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	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	B	A	B	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	
Sodium sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	

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	NR	SBR	CR	NBR	IIR	CSM	EPDM	EPM	VMQ	FKM	XLPE	UHMWPE	PTFE
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

## TABELLA DELLE RESISTENZE CHIMICHE DEI POLIMERI\* POLYMERS CHEMICAL RESISTANCE CHART \*



	NATURAL RUBBER NR	SBR SBR	CHLOROPRENE CR	NITRILE NBR	BUTYL IIR	hypalon® CSM	EPDM EPDM	EPM EPM	silicone VMQ	viton® FKM	CROSS-LINKED POLYETHYLENE XLPE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE UHMWPE	teflon® PTFE
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

### Legenda

**A** RESISTENZA BUONA

**B** RESISTENZA ABBASTANZA BUONA

**C** RESISTENZA MEDIOCRE

**X** NON ADATTO

**I** INFORMAZIONI INSUFFICIENTI

### Legend

**A** GOOD RESISTANCE

**B** FAIR RESISTANCE

**C** POOR RESISTANCE

**X** NOT RECOMMENDED

**I** INSUFFICIENT INFORMATION

- \* La tabella e' basata su test di laboratorio e su dati resi pubblici, e si ritiene sia accurata. Comunque deve essere utilizzata esclusivamente come guida indicativa in quanto non prende in considerazione tutte le variabili che si incontrano nell'uso del prodotto, come ad esempio temperatura, concentrazione, pressione, durata dell'esposizione al fluido, stabilita' e possibili contaminazioni del fluido stesso.  
Tutte le applicazioni devono essere sempre verificate; la miscela utilizzata deve essere sempre testata con il prodotto chimico che deve convogliare  
**Nota Bene:** tutti i dati sono basati su test condotti a 21 °C (70 °F) se non diversamente specificato

- \* 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