

Polypropylene Chemical Resistance A to C

Chemical Name	70°	140°	180°
Acetaldehyde	2	3	*
Acetamide	1	2	*
Acetic Solvents Crude	2	NR	NR
Acetic Solvents Pure	2	NR	NR
Acetic Acid 10%	1	1	1
Acetic Acid 20%	1	1	1
Acetic Acid 50%	1	1	1
Acetic Acid 80%	1	1	1
Acetic Acid Glacial	1	1	2
Acetic Anhydride	2	NR	NR
Acetone	1	1	2
Acetophenone	2	2	NR
Acetyl Chloride	*	*	*
Acetylene	1	*	*
Acrylonitrile	1	2	*
Adipic Acid	1	2	2
Alcohol Allyl	2	2	*
Alcohol Amyl	1	2	*
Alcohol Butyl	1	1	2
Alcohol Ethyl	1	1	2
Alcohol Methyl	1	1	1
Alcohol Propyl	1	*	*
Allyl Chloride	2	*	*
Alum	1	1	1
Alum Ammonium	1	1	1
Alum Chrome	1	1	1
Alum Potassium	1	1	1
Aluminum Chloride	1	1	1
Aluminum Fluoride	1	1	1
Aluminum Hydroxide	1	1	1
Aluminum Nitrate	1	1	1
Aluminum Sulfate	1	1	*
Ammonia Anhydrous	1	1	1
Ammonia Aqueous	1	1	1
Ammonium BiFluoride	1	1	1
Ammonium Carbonate	1	1	1
Ammonium Chloride	1	1	2
Ammonium Fluoride 10%	1	1	1
Ammonium Fluoride 25%	1	1	1
Ammonium Hydroxide	1	1	1
Ammonium Metaphosphate	1	1	1
Ammonium Nitrate	1	1	1
Ammonium Persulfate	1	1	1
Ammonium Phosphate	1	1	1
Ammonium Sulfate	1	1	1

Chemical Name	70°	140°	180°
Ammonium Sulfide	1	1	1
Amyl Acetate	NR	NR	NR
Amyl Chloride	NR	NR	NR
Aniline	1	3	3
Aniline Hydrochloride	NR	NR	NR
Antimony Trichloride	1	1	1
Aqua Regia	2	NR	NR
Arsenic Acid	1	1	1
Barium Carbonate	1	1	1
Barium Chloride	1	1	1
Barium Hydroxide	1	1	2
Barium Sulfate	2	NR	NR
Barium Sulfide	1	1	1
Beer	1	1	1
Beet Sugar Liquors	1	2	*
Benzaldehyde	1	NR	NR
Benzene	3	NR	NR
Benzene Sulfonic Acid	2	NR	NR
Benzoic Acid	1	NR	NR
Benzyl Alcohol	1	3	NR
Benzyl Chloride	1	1	2
Bismuth Carbonate	1	1	1
Borax	1	1	2
Boric Acid	1	1	1
Bromine Liquid	NR	NR	NR
Bromine Water	NR	NR	NR
Butadiene	NR	NR	NR
Butane	1	NR	NR
Butyl Acetate	2	NR	NR
Butyl Alcohol	1	1	1
Butylene	2	NR	NR
Butyl Phenol	2	*	*
Butyne Diol	1	1	*
Butyric Acid	1	1	1
Butyl Amine	2	*	*
Butyl Ether	NR	NR	NR
Butyl Chloride	NR	NR	NR
Butyl Phthalate	2	2	*
Calcium Bisulfide	1	1	1
Calcium Bisulfite	1	1	1
Calcium Carbonate	1	1	1
Calcium Chlorate	1	1	1
Calcium Chloride	1	1	1
Calcium Hydroxide	1	1	2

LEGEND

Units are in μF

1 - <15% loss in property values. Little or no chemical attack.

2 - 15 - 30% loss in property values. Minor chemical attack.

3 - 30 - 50% loss in property values. Moderate chemical attack.

NR - Not recommended. >50% loss in property values.

* - No data available.

Polypropylene Chemical Resistance C to E

Chemical Name	70°	140°	180°
Calcium Hypochlorite	1	2	2
Calcium Nitrate	1	1	1
Calcium Sulfate	1	1	1
Carbon Dioxide	1	1	1
Carbon Disulfide	NR	NR	NR
Carbon Monoxide	1	1	1
Carbon Tetrachloride	2	3	NR
Carbonic Acid	1	1	2
Castor Oil	1	3	NR
Caustic Potash	1	1	1
Caustic Soda	1	2	2
Cellosolves	2	3	NR
Chloral Hydrate	1	*	*
Chloric Acid	NR	NR	NR
Chlorinated Water	2	3	*
Chlorine (Dry)	3	*	*
Chlorine (Wet)	NR	NR	NR
Chloroacetic Acid	1	1	*
Chlorobenzene	3	NR	NR
Chloroform	NR	NR	NR
Chlorosulfonic Acid	3	NR	NR
Chrome Alum	1	1	NR
Chromic Acid 10%	1	1	2
Chromic Acid 30%	1	NR	NR
Chromic Acid 40%	1	NR	NR
Chromic Acid 50%	1	NR	NR
Citric Acid	1	1	1
Coconut Oil	1	1	*
Copper Carbonate	1	1	1
Copper Chloride	1	1	1
Copper Cyanide	1	1	1
Copper Fluoride	1	1	1
Copper Nitrate	1	1	1
Copper Sulfate	1	1	1
Cottonseed Oil	1	1	1
Cresol	NR	NR	NR
Cresylic Acid	NR	NR	NR
Croton Aldehyde	1	NR	NR
Crude Oil	1	2	*
Cyclohexane	3	NR	NR
Cyclohexanol	2	*	*
Cyclohexanone	NR	NR	NR
Detergent	1	1	1
Dextrin	1	1	*
Dextrose	1	1	*

Chemical Name	70°	140°	180°
Diacetone Alcohol	1	2	*
Diazo Salts	1	1	*
Dibutyl Phthalate	1	2	NR
Dichlorobenzene	3	NR	NR
Dichlorodifluoro Methane	1	2	*
Dichloroethylene	1	NR	NR
Dichloroethane	1	*	*
Diesel Fuel	1	2	NR
Diethylamine	1	2	2
Diethylene Glycol	1	1	1
Diethyl Cellosolve	*	*	*
Diethyl Ether	NR	NR	NR
Diglycolic Acid	1	NR	NR
Dimethylamine	1	1	*
Dimethyl Formamide	1	1	*
Dimethyl Sulfoxide	1	2	*
Diocetyl Phthalate	NR	NR	NR
Dioxane 1,4	1	NR	NR
Diphenyl	NR	*	*
Diphenyl Ether	NR	*	*
Diphenyl Oxide	*	*	*
Dipropylene Glycol	1	2	*
Distilled Water	1	1	1
Dizinybenzene	NR	NR	NR
Epichlorohydrin	1	1	*
Ethane	3	*	*
Ethanolamine	1	1	2
Ethers	NR	*	*
Ethyl Acetate	1	1	2
Ethyl Acetoacetate	NR	*	*
Ethyl Acrylate	NR	*	*
Ethyl Alcohol	1	1	2
Ethyl Benzene	NR	*	*
Ethyl Benzoate	2	3	*
Ethyl Butyrate	2	NR	*
Ethyl Chloride	NR	*	*
Ethyl Ether	3	NR	*
Ethyl Sulfate	*	*	*
Ethylene Bromide	NR	NR	NR
Ethylene Chloride	3	NR	*
Ethylene Chlorohydrine	NR	*	*
Ethylene Diamine	1	*	*

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Polypropylene Chemical Resistance E to L

Chemical Name	70°	140°	180°
Ethylene Dibromide	2	*	*
Ethylene Dichloride	2	3	NR
Ethylene Glycol	1	1	1
Ethylene Oxide	2	3	*
Fatty Acids	1	1	1
Ferric Chloride	1	1	1
Ferric Nitrate	1	1	1
Ferric Sulfate	1	1	1
Ferrous Chloride	1	1	1
Ferrous Sulfate	1	1	1
Fish Solubles	1	1	1
Fluoboric Acid	1	1	1
Fluorine Gas (Dry)	NR	*	*
Fluorine Gas (Wet)	NR	*	*
Fluosilic Acid	1	1	1
Formaldehyde	1	1	2
Formic Acid	1	NR	NR
Freon (Dry)	NR	*	*
Freon (Wet)	1	2	2
Fructose	1	1	1
Fruit Juice	1	1	1
Furfural	NR	*	*
Gallic Acid	1	1	1
Gas (Manufactured)	NR	NR	NR
Gas (Natural)	2	*	*
Gasoline (Leaded)	3	NR	NR
Gasoline (Unleaded)	3	NR	NR
Gelatin	1	1	1
Glucose	1	1	1
Glue	1	*	*
Glycerine	1	1	1
Glycol	1	1	1
Glycolic Acid	1	1	1
Green Liquor	1	*	*
Helium	1	*	*
Heptane	2	NR	*
Hexamine	*	*	*
Hexane	2	NR	NR
Hexanol Tertiary	1	2	*
Hydrazine	3	*	*

Chemical Name	70°	140°	180°
Hydraulic Fluid	NR	*	*
Hydrobromic Acid	1	2	3
Hydrochloric Acid (>20%)	1	1	1
Hydrochloric Acid (50%)	1	1	2
Hydrocyanic Acid	1	1	1
Hydrofluoric Acid (<40%)	1	1	2
Hydrofluosilicic Acid	1	1	1
Hydrofluorosilicic Acid	1	1	1
Hydrogen Gas	1	1	1
Hydrogen Chloride	1	1	*
Hydrogen Cyanide	1	1	1
Hydrogen Fluoride	1	*	*
Hydrogen Peroxide	1	2	3
Hydrogen Sulfide (Dry)	1	1	1
Hydrogen Sulfide (Wet)	1	1	1
Hydroquinone	1	1	1
Hydroxylaminc Sulfate	1	1	*
Hypo Sodium Thiosulfate	1	1	1
Hypochlorous Acid	1	1	*
Iodine	1	1	1
Isobutyl Alcohol	1	2	2
Isooctane	1	NR	NR
Isopropyl Acetate	2	3	*
Isopropyl Alcohol	1	1	1
Isopropyl Ether	2	NR	NR
Jet Fuel (JP3,4,5)	1	NR	*
Kerosene	1	NR	*
Keytones	2	NR	*
Lactic Acid	1	1	2
Lacquer Solvents	NR	*	*
LPG (Propane)	1	2	*
Lard	2	NR	*
Lauric Acid	1	1	*
Lauryl Chloride	1	1	*
Lead Acetate	1	1	2
Lead Molten	NR	*	*
Lead Nitrate	1	1	*

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Polypropylene Chemical Resistance L to P

Chemical Name	70°	140°	180°
Lead Sulfamate	1	1	*
Lime	1	1	1
Lime Sulfur	1	1	1
Lineoleic Acid	2	*	*
Linseed Oil	1	1	1
Lithium Chloride	1	*	*
Lithium Hydroxide	1	*	*
Lubricating Oil	1	NR	*
Lye	1	1	1
Machine Oil	1	1	NR
Magnesium Bisulfate	1	2	*
Magnesium Carbonate	1	1	1
Magnesium Chloride	1	1	1
Magnesium Hydroxide	1	1	1
Magnesium Nitrate	1	1	1
Magnesium Sulfate	1	1	1
Maleic Acid	1	1	1
Malic Acid	1	NR	*
Manganese Chloride	1	*	*
Manganese Sulfate	2	*	*
Mercuric Chloride	1	1	1
Mercuric Cyanide	1	1	1
Mercurous Nitrate	1	1	1
Mercury	2	2	2
Methane	1	*	*
Methyl Acetate	1	*	*
Methyl Acetone	*	*	*
Methanol	1	1	1
Methyl Amine	1	*	*
Methyl Bromide	2	NR	*
Methyl Cellosolve	2	*	*
Methyl Chloroform	2	*	*
Methyl Chloride (Wet)	3	NR	*
Methyl Chloride (Dry)	NR	*	*
Methyl Ethyl Keytone	NR	*	*
Methyl Isobutyl Keytone	NR	*	*
Methyl Salicylate	1	*	*
Methyl Sulfate	1	*	*
Methyl Sulfuric Acid	1	1	1
Methylene Chloride	2	NR	*
Milk	1	1	2
Mineral Oil	2	2	*
Mixed Acids	NR	*	*
Molasses	1	1	1
Morpholine	2	2	*

Chemical Name	70°	140°	180°
Monochloroacetic Acid	1	1	*
Monochlorobenzene	NR	*	*
Monochlorodifluoromethane	1	*	*
Monoethanolamine	1	2	2
Motor Oil	3	3	*
Mustard	1	1	*
Naptha	3	NR	*
Naphthalene	2	2	*
Nickel Chloride	1	1	1
Nickel Nitrate	1	1	1
Nickel Sulfate	1	1	1
Nitric Acid (100%)	NR	*	*
Nitric Acid (70%)	NR	*	*
Nitric Acid (50%)	2	NR	*
Nitric Acid (30%)	1	1	*
Nitric Acid (10%)	1	1	1
Nitrobenzene	2	NR	*
Nitrous Acid (10%)	2	*	*
Nitrous Oxide	1	*	*
Ocenol	NR	*	*
Oils & Fats	1	1	*
Oils, Vegetable	1	1	*
Oleic Acid	2	2	2
Oxalic Acid	1	1	*
Oxygen	1	1	1
Ozone	3	*	*
Palmitic Acid	2	2	*
Paraffin	1	*	*
Pentane	*	*	*
Perchloroethylene	NR	*	*
Perchloric Acid	NR	*	*
Petroleum	2	*	*
Petroleum Ether	1	1	*
Phenol	1	NR	*
Phenol Sulfonic Acid	*	*	*
Phenylhydrazine	*	*	*
Phosphoric Acid (10%)	1	1	1
Phosphoric Acid (25%)	1	1	1
Phosphoric Acid (50-100%)	1	1	1
Phosphorus	2	*	*
Phosphorus Trichloride	NR	*	*

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Polypropylene Chemical Resistance P to S

Chemical Name	70°	140°	180°
Phosphorus Pentachloride	1	2	2
Photographic Solutions	1	1	3
Phthalic Acid	2	2	2
Picric Acid	*	*	*
Plating Solutions Brass	1	1	1
Plating Solutions Cadmium	1	1	1
Plating Solutions Chrome	1	1	1
Plating Solutions Copper	1	1	1
Plating Solutions Gold	1	1	1
Plating Solutions Lead	1	1	1
Plating Solutions Nickel	1	1	1
Plating Solutions Silver	1	1	1
Plating Solutions Tin	1	1	1
Plating Solutions Zinc	1	1	1
Potassium Acetate	1	*	*
Potassium Aluminum Sulfate	1	1	1
Potassium Bicarbonate	1	1	1
Potassium Bichromate	1	1	1
Potassium Bromide	1	1	1
Potassium Carbonate	1	1	1
Potassium Chlorate	1	1	1
Potassium Chloride	1	1	1
Potassium Chromate	1	1	1
Potassium Cyanide	1	1	1
Potassium Dichromate	1	1	1
Potassium Ferricyanide	1	1	1
Potassium Ferrocyanide	1	1	1
Potassium Hydrate	*	*	*
Potassium Hydroxide	1	1	*
Potassium Hypochlorite	NR	*	*
Potassium Iodide	1	1	1
Potassium Nitrate (10%)	1	1	1
Potassium Permanganate	1	2	3
Potassium Persulfate	1	1	*
Potassium Sulfate	1	1	1
Potassium Sulfide	1	1	1
Potassium Sulfite	1	1	*
Propane	2	NR	*
Propyl Alcohol	1	1	1
Propylene Glycol	1	2	*
Propylene Oxide	1	2	*
Pyridine	1	1	*
Pyrogalllic Acid	1	*	*
Pyroligneous Acid	1	2	*

Chemical Name	70°	140°	180°
Resorcinol	1	1	1
Rosin	1	1	*
Salicylic Acid	1	2	*
Salicylaldehyde	1	2	*
Salt Brine	1	1	1
Sea Water	1	1	1
Sewage	1	1	1
Silicon Oil	1	1	*
Silver Chloride	1	2	*
Silver Cyanide	1	1	1
Silver Nitrate	1	2	2
Soap Solutions	1	1	1
Sodium Acetate	1	1	1
Sodium Acid Sulfate	1	1	1
Sodium Benzoate	1	1	1
Sodium Bicarbonate	1	1	1
Sodium Bichromate	1	1	2
Sodium Bisulfate	1	1	1
Sodium Bisulfite	1	1	1
Sodium Borate	1	1	2
Sodium Bromide	1	1	1
Sodium Carbonate	1	1	1
Sodium Chlorate	1	1	1
Sodium Chromate	1	1	*
Sodium Cyanide	1	1	1
Sodium Dichromate	1	1	2
Sodium Ferricyanide	1	1	1
Sodium Ferrocyanide	1	1	*
Sodium Fluoride	1	1	1
Sodium Hydroxide	2	2	2
Sodium Hypochlorite	2	*	*
Sodium Hyposulfite	*	*	*
Sodium Metaphosphate	1	NR	*
Sodium Nitrate	1	1	1
Sodium Nitrite	1	1	1
Sodium Perborate	1	1	1
Sodium Peroxide	2	2	*
Sodium Phosphates	1	1	1
Sodium Silicate	1	1	1
Sodium Sulfate	1	1	1
Sodium Sulfide	1	1	1
Sodium Sulfite	1	1	2
Sodium Thiosulfate	1	1	2
Sodium Tetraborate	1	1	2

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Polypropylene Chemical Resistance S to Z

Chemical Name	70°	140°	180°
Soy Bean Oil	1	*	*
Stannic Chloride	1	1	1
Stannous Chloride	1	1	1
Starch	1	1	*
Stearic Acid	1	2	3
Stoddard's Solution	1	NR	*
Styrene	*	*	*
Sugar Juice	1	*	*
Sulfate Liquor	1	*	*
Sulfinol	*	*	*
Sulfur	1	1	1
Sulfur (Molten)	NR	*	*
Sulfur Chloride	NR	*	*
Sulfur Dioxide (Wet)	1	3	NR
Sulfur Dioxide (Dry)	1	3	*
Sulfur Trioxide	NR	*	*
Sulfuric Acid (10%)	1	1	1
Sulfuric Acid (30%)	1	1	1
Sulfuric Acid (60%)	1	1	1
Sulfuric Acid (80%)	1	1	1
Sulfuric Acid (100%)	1	2	NR
Sulfurous Acid	1	1	1
Tall Oil	1	1	1
Tannic Acid	1	1	1
Tanning Liquor	1	2	2
Taritar Oil	1	*	*
Tartaric Acid	1	1	1
Tetrachloroacetic Acid	*	*	*
Tetrachloroethane	NR	*	*
Tetrachloroethylene	NR	*	*
Tetraethyl Lead	2	NR	*
Tetrahydrofuran	3	NR	*
Tetrahydronaphthalene	3	NR	*
Tetraphosphoric Acid	*	*	*
Thionyl Chloride	NR	*	*
Tin Tetrachloride	1	1	1
Titanium Tetrachloride	NR	*	*
Toluene	NR	*	*
Tomato Juice	1	1	1
Tributyl Citrate	2	3	*
Tributyl Phosphate	2	NR	*
Transformer Oil	1	NR	*
Trichloroacetic Acid	2	2	NR

Chemical Name	70°	140°	180°
Trichloroethane	NR	*	*
Trichloroethylene	3	NR	*
Trichlorotrifluoroethane	1	*	*
Tricresyl Phosphate	1	2	NR
Triethanolamine	NR	*	*
Triethylamine	NR	*	*
Triethylene Glycol	1	*	*
Trisodium Phosphate	*	*	*
Tripropylene Glycol	1	*	*
Trisodium Phosphate	1	1	1
Tung Oil	1	*	*
Turpentine	2	NR	*
Undecanol	2	NR	*
Urea	1	1	1
Urine	1	1	1
Varnish	1	*	*
Vinegar	1	1	1
Vinyl Acetate	2	NR	*
Vinyl Chloride	*	*	*
Vinylidene Chloride	NR	*	*
Water, Fresh	1	1	1
Water, Acid Mine	1	1	1
Water, Distilled	1	1	1
Water, Deionized	1	1	1
Water, Demineralized	1	1	1
Water, Salt	1	1	1
Whiskey	1	1	1
White Liquor	1	1	*
White Spirit	1	1	1
Wine	1	1	1
Xylene	NR	*	*
Zinc Chloride	1	1	1
Zinc Cyanide	1	1	1
Zinc Molten	NR	*	*
Zinc Nitrate	1	1	1
Zinc Stearate	1	*	*
Zinc Sulfate	1	1	1

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