

Chemical Compatibility Reference Chart

PEEK

Polyetherether Ketone (PEEK) Chemical Compatibility Chart: Check the chemical compatibility of PEEK with various chemicals, solvents, alcohols and other products.

Chemical	Compatibility
Acetaldehyde	A-Excellent
Acetic Acid	A-Excellent
Acetic Acid 20%	A-Excellent
Acetic Acid 80%	A-Excellent
Acetone	A-Excellent
Acetylene	A-Excellent
Acrylonitrile	A-Excellent
Alcohols: Amyl	A-Excellent
Alcohols: Benzyl	A-Excellent
Alcohols: Butyl	A-Excellent
Alcohols: Ethyl	A-Excellent
Alcohols: Isopropyl	A-Excellent
Alcohols: Methyl	A-Excellent
Alcohols: Propyl	A-Excellent
Aluminum Chloride	A-Excellent
Aluminum Chloride 20%	A-Excellent
Aluminum Potassium Sulfate 10%	A-Excellent
Aluminum Potassium Sulfate 100%	A-Excellent
Aluminum Sulfate	A-Excellent
Amines	A-Excellent
Ammonia 10%	A-Excellent
Ammonia, anhydrous	A-Excellent
Ammonia, liquid	B-Good
Ammonium Hydroxide	A-Excellent
Ammonium Nitrate	A-Excellent
Amyl Acetate	A-Excellent
Amyl Alcohol	A-Excellent
Aniline	A-Excellent
Antifreeze	A-Excellent
Antimony Trichloride	A-Excellent
Aqua Regia (80% HCl, 20% HNO3)	D-Severe Effect

Arochlor 1248	A-Excellent
Aromatic Hydrocarbons	A-Excellent
Asphalt	A-Excellent
Barium Carbonate	N/A
Barium Chloride	A-Excellent
Barium Sulfide	A-Excellent
Beer	A-Excellent
Beet Sugar Liquids	N/A
Benzaldehyde	A-Excellent
Benzene	A-Excellent
Benzene Sulfonic Acid	D-Severe Effect
Benzoic Acid	A-Excellent
Borax (Sodium Borate)	A-Excellent
Boric Acid	A-Excellent
Brewery Slop	N/A
Bromine	D-Severe Effect
Butadiene	N/A
Butane	A-Excellent
Butanol (Butyl Alcohol)	A-Excellent
Butter	N/A
Buttermilk	N/A
Butyl Amine	A-Excellent
Butyl Ether	N/A
Butyl Phthalate	A-Excellent
Butylacetate	A-Excellent
Butylene	A-Excellent
Butyric Acid	A-Excellent
Calcium Bisulfate	N/A
Calcium Bisulfide	A-Excellent
Calcium Bisulfite	N/A
Calcium Carbonate	A-Excellent
Calcium Chlorate	N/A
Calcium Chloride	A-Excellent
Calcium Hydroxide	A-Excellent
Calcium Hypochlorite	A-Excellent
Calcium Nitrate	A-Excellent
Calcium Oxide	A-Excellent
Calcium Sulfate	A-Excellent

Calgon	A-Excellent
Cane Juice	N/A
Carbolic Acid (Phenol)	D-Severe Effect
Carbon Bisulfide	D-Severe Effect
Carbon Dioxide (dry)	A-Excellent
Carbon Dioxide (wet)	B-Good
Carbon Disulfide	D-Severe Effect
Carbon Monoxide	B-Good
Carbon Tetrachloride	A-Excellent
Carbonic Acid	A-Excellent
Catsup	A-Excellent
Chloric Acid	N/A
Chlorinated Glue	N/A
Chlorine (dry)	A-Excellent
Chlorine Water	D-Severe Effect
Chlorine, Anhydrous Liquid	D-Severe Effect
Chloroacetic Acid	A-Excellent
Chlorobenzene (Mono)	A-Excellent
Chlorobromomethane	N/A
Chloroform	A-Excellent
Chlorosulfonic Acid	A-Excellent
Chocolate Syrup	N/A
Chromic Acid 10%	D-Severe Effect
Chromic Acid 30%	A-Excellent
Chromic Acid 5%	A-Excellent
Chromic Acid 50%	D-Severe Effect
Chromium Salts	N/A
Cider	N/A
Citric Acid	A-Excellent
Citric Oils	A-Excellent
Cloroxr (Bleach)	B-Good
Coffee	N/A
Copper Chloride	A-Excellent
Copper Cyanide	A-Excellent
Copper Fluoborate	N/A
Copper Nitrate	A-Excellent
Copper Sulfate >5%	A-Excellent
Copper Sulfate 5%	A-Excellent

Cream	N/A
Cresols	A-Excellent
Cresylic Acid	A-Excellent
Cupric Acid	N/A
Cyanic Acid	N/A
Cyclohexane	A-Excellent
Cyclohexanone	A-Excellent
Detergents	A-Excellent
Diacetone Alcohol	N/A
Dichlorobenzene	A-Excellent
Dichloroethane	A-Excellent
Diesel Fuel	A-Excellent
Diethyl Ether	A-Excellent
Diethylamine	A-Excellent
Dimethyl Formamide	A-Excellent
Epsom Salts (Magnesium Sulfate)	A-Excellent
Ethane	B-Good
Ethanol	A-Excellent
Ethanolamine	N/A
Ether	A-Excellent
Ethyl Acetate	A-Excellent
Ethyl Benzoate	N/A
Ethyl Chloride	A-Excellent
Ethylene Chloride	A-Excellent
Ethylene Chlorohydrin	A-Excellent
Ethylene Diamine	A-Excellent
Ethylene Dichloride	A-Excellent
Ethylene Glycol	A-Excellent
Ethylene Oxide	A-Excellent
Fatty Acids	A-Excellent
Ferric Chloride	B-Good
Ferric Nitrate	A-Excellent
Ferric Sulfate	A-Excellent
Ferrous Chloride	A-Excellent
Ferrous Sulfate	A-Excellent
Fluoboric Acid	N/A
Fluorine	D-Severe Effect
Fluosilicic Acid	N/A

Formaldehyde 100%	A-Excellent
Formaldehyde 40%	A-Excellent
Formic Acid	C-Fair
Freon 113	A-Excellent
Freon 12	A-Excellent
Freon 22	A-Excellent
Freon TF	A-Excellent
Freonr 11	A-Excellent
Fruit Juice	A-Excellent
Fuel Oils	A-Excellent
Gasoline, leaded, ref.	A-Excellent
Gasoline, unleaded	N/A
Gelatin	A-Excellent
Glycerin	A-Excellent
Heptane	A-Excellent
Hexane	A-Excellent
Honey	N/A
Hydraulic Oil (Petro)	A-Excellent
Hydraulic Oil (Synthetic)	A-Excellent
Hydrazine	A-Excellent
Hydrobromic Acid 100%	D-Severe Effect
Hydrobromic Acid 20%	D-Severe Effect
Hydrochloric Acid 100%	A-Excellent
Hydrochloric Acid 20%	A-Excellent
Hydrochloric Acid 37%	A-Excellent
Hydrochloric Acid, Dry Gas	A-Excellent
Hydrocyanic Acid	A-Excellent
Hydrocyanic Acid (Gas 10%)	A-Excellent
Hydrofluoric Acid 100%	D-Severe Effect
Hydrofluoric Acid 20%	D-Severe Effect
Hydrofluoric Acid 50%	D-Severe Effect
Hydrofluoric Acid 75%	D-Severe Effect
Hydrogen Peroxide 10%	A-Excellent
Hydrogen Peroxide 100%	A-Excellent
Hydrogen Peroxide 30%	A-Excellent
Hydrogen Peroxide 50%	A-Excellent
Hydrogen Sulfide (aqua)	A-Excellent
Hydrogen Sulfide (dry)	A-Excellent

Iodine	C-Fair
Iodine (in alcohol)	A-Excellent
Iodoform	N/A
Isooctane	A-Excellent
Isopropyl Acetate	N/A
Isopropyl Ether	A-Excellent
Isotane	N/A
Jet Fuel (JP3, JP4, JP5)	A-Excellent
Kerosene	A-Excellent
Ketones	A-Excellent
Lacquer Thinners	N/A
Lacquers	N/A
Lactic Acid	A-Excellent
Lard	A-Excellent
Latex	N/A
Lead Acetate	A-Excellent
Lead Nitrate	N/A
Lead Sulfamate	N/A
Ligroin	A-Excellent
Lubricants	A-Excellent
Lye: Ca(OH) ₂ Calcium Hydroxide	B-Good
Lye: KOH Potassium Hydroxide	B-Good
Lye: NaOH Sodium Hydroxide	B-Good
Magnesium Bisulfate	N/A
Magnesium Carbonate	N/A
Magnesium Chloride	B-Good
Magnesium Hydroxide	A-Excellent
Magnesium Nitrate	N/A
Magnesium Oxide	N/A
Magnesium Sulfate (Epsom Salts)	A-Excellent
Maleic Acid	A-Excellent
Mercuric Chloride (dilute)	A-Excellent
Mercury	A-Excellent
Methane	A-Excellent
Methanol (Methyl Alcohol)	A-Excellent
Methyl Acetate	A-Excellent
Methyl Alcohol 10%	A-Excellent
Methyl Bromide	N/A

Methyl Butyl Ketone	A-Excellent
Methyl Ethyl Ketone	A-Excellent
Methyl Ethyl Ketone Peroxide	N/A
Methyl Isobutyl Ketone	A-Excellent
Methyl Isopropyl Ketone	A-Excellent
Methyl Methacrylate	N/A
Methylamine	N/A
Methylene Chloride	A-Excellent
Milk	A-Excellent
Mineral Spirits	N/A
Molasses	A-Excellent
Monochloroacetic acid	A-Excellent
Motor oil	A-Excellent
Mustard	N/A
Naphtha	A-Excellent
Naphthalene	A-Excellent
Natural Gas	A-Excellent
Nickel Chloride	A-Excellent
Nickel Nitrate	A-Excellent
Nickel Sulfate	A-Excellent
Nitric Acid (20%)	A-Excellent
Nitric Acid (50%)	D-Severe Effect
Nitric Acid (5-10%)	A-Excellent
Nitric Acid (Concentrated)	D-Severe Effect
Nitrobenzene	A-Excellent
Nitrogen Fertilizer	N/A
Nitromethane	A-Excellent
Nitrous Acid	N/A
Nitrous Oxide	A-Excellent
Oils: Aniline	A-Excellent
Oils: Castor	A-Excellent
Oils: Coconut	A-Excellent
Oils: Creosote	A-Excellent
Oils: Diesel Fuel (20, 30, 40, 50)	A-Excellent
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	A-Excellent
Oils: Ginger	N/A
Oils: Hydraulic Oil (Petro)	A-Excellent
Oils: Hydraulic Oil (Synthetic)	A-Excellent

Oils: Lemon	N/A
Oils: Linseed	A-Excellent
Oils: Mineral	A-Excellent
Oils: Peanut	A-Excellent
Oils: Silicone	A-Excellent
Oils: Soybean	A-Excellent
Oils: Transformer	A-Excellent
Oils: Turbine	N/A
Oleic Acid	A-Excellent
Oxalic Acid (cold)	A-Excellent
Ozone	A-Excellent
Palmitic Acid	N/A
Paraffin	A-Excellent
Pentane	A-Excellent
Perchloric Acid	A-Excellent
Perchloroethylene	A-Excellent
Petrolatum	A-Excellent
Petroleum	A-Excellent
Phenol (10%)	N/A
Phenol (Carbolic Acid)	D-Severe Effect
Phosphoric Acid (>40%)	A-Excellent
Phosphoric Acid (crude)	A-Excellent
Phosphorus Trichloride	A-Excellent
Photographic Developer	N/A
Photographic Solutions	A-Excellent
Phthalic Acid	A-Excellent
Phthalic Anhydride	N/A
Picric Acid	A-Excellent
Potash (Potassium Carbonate)	A-Excellent
Potassium Bicarbonate	A-Excellent
Potassium Bromide	N/A
Potassium Chlorate	A-Excellent
Potassium Chloride	A-Excellent
Potassium Ferricyanide	A-Excellent
Potassium Ferrocyanide	A-Excellent
Potassium Hydroxide (Caustic Potash)	A-Excellent
Potassium Nitrate	A-Excellent
Potassium Oxalate	N/A

Potassium Permanganate	A-Excellent
Potassium Sulfate	A-Excellent
Potassium Sulfide	A-Excellent
Propane (liquefied)	A-Excellent
Pyridine	A-Excellent
Pyrogalllic Acid	N/A
Resorcinol	A-Excellent
Salicylic Acid	A-Excellent
Salt Brine (NaCl saturated)	A-Excellent
Sea Water	A-Excellent
Shellac (Bleached)	N/A
Shellac (Orange)	N/A
Silicone	A-Excellent
Silver Bromide	N/A
Silver Nitrate	A-Excellent
Soap Solutions	A-Excellent
Soda Ash (see Sodium Carbonate)	A-Excellent
Sodium Acetate	A-Excellent
Sodium Aluminate	N/A
Sodium Benzoate	A-Excellent
Sodium Bicarbonate	A-Excellent
Sodium Bisulfate	A-Excellent
Sodium Bisulfite	A-Excellent
Sodium Borate (Borax)	A-Excellent
Sodium Bromide	N/A
Sodium Carbonate	A-Excellent
Sodium Chlorate	A-Excellent
Sodium Chloride	A-Excellent
Sodium Chromate	A-Excellent
Sodium Cyanide	A-Excellent
Sodium Ferrocyanide	A-Excellent
Sodium Fluoride	A-Excellent
Sodium Hydrosulfite	A-Excellent
Sodium Hydroxide (20%)	A-Excellent
Sodium Hydroxide (50%)	A-Excellent
Sodium Hydroxide (80%)	A-Excellent
Sodium Hypochlorite (<20%)	B-Good
Sodium Hypochlorite (100%)	B-Good

Sodium Hyposulfate	N/A
Sodium Metaphosphate	A-Excellent
Sodium Metasilicate	A-Excellent
Sodium Nitrate	A-Excellent
Sodium Perborate	A-Excellent
Sodium Peroxide	A-Excellent
Sodium Polyphosphate	A-Excellent
Sodium Silicate	A-Excellent
Sodium Sulfate	A-Excellent
Sodium Sulfide	A-Excellent
Sodium Sulfite	A-Excellent
Sodium Tetraborate	A-Excellent
Sodium Thiosulfate (hypo)	A-Excellent
Stannic Chloride	A-Excellent
Stannic Fluoborate	N/A
Stannous Chloride	A-Excellent
Starch	A-Excellent
Stearic Acid	A-Excellent
Stoddard Solvent	A-Excellent
Styrene	A-Excellent
Sulfur Chloride	A-Excellent
Sulfur Dioxide	A-Excellent
Sulfur Dioxide (dry)	A-Excellent
Sulfur Hexafluoride	A-Excellent
Sulfur Trioxide	A-Excellent
Sulfur Trioxide (dry)	A-Excellent
Sulfuric Acid (<10%)	A-Excellent
Sulfuric Acid (10-75%)	D-Severe Effect
Sulfuric Acid (75-100%)	D-Severe Effect
Sulfuric Acid (cold concentrated)	D-Severe Effect
Sulfuric Acid (hot concentrated)	D-Severe Effect
Sulfurous Acid	A-Excellent
Tallow	A-Excellent
Tartaric Acid	A-Excellent
Tetrachloroethane	N/A
Tetrachloroethylene	A-Excellent
Tetrahydrofuran	A-Excellent
Tin Salts	A-Excellent

Toluene (Toluol)	A-Excellent
Trichloroethane	A-Excellent
Trichloroethylene	A-Excellent
Trisodium Phosphate	A-Excellent
Turpentine	A-Excellent
Urea	A-Excellent
Varnish	A-Excellent
Vinegar	A-Excellent
Vinyl Chloride	A-Excellent
Water, Distilled	A-Excellent
Water, Fresh	A-Excellent
Water, Salt	A-Excellent
Whiskey & Wines	A-Excellent
Xylene	A-Excellent
Zinc Chloride	A-Excellent
Zinc Hydrosulfite	N/A
Zinc Sulfate	A-Excellent

Explanation of Footnotes

- ¹. Satisfactory to 72°F (22°C)
- ². Satisfactory to 120°F (48°C)

Ratings: Chemical Effect

A = Excellent.

B = Good, Minor Effect, slight corrosion or discoloration

C = Fair, Moderate Effect, not recommended for continuous use. Softening, loss of strength, or swelling may occur.

D = Severe Effect, not recommended for ANY use.

N/A = Information not available.

Please note that these charts are for general reference only. We have aggregated this data from dozens of original sources and any single piece of data cannot be guaranteed.

Additionally, many factors affect the chemical resistance of a given plastic product including the concentration/purity of the chemical, working temperature, wall thickness and condition of the container, etc. It is **your responsibility** to test a container and chemical together ensure compatibility under your unique circumstances.

Visit www.cplabsafety.com/chemical-compatibility-charts for up to date information.