



CHEMICAL COMPATIBILITY CHART

NYLON

Our products can be exposed to a huge variety of chemicals. The data table below is an application guide, and indicates the resistance of the specific thermoplastics we use in the construction of our products, to common chemicals.

The data given should be used cautiously, and as a guide only. Various factors such as concentration, additives, exposure time, temperature and internal mechanical stress levels will all impact on the working life of our plastic parts.

Use the table conservatively and if any doubt exists, do not proceed with the application.

In the table below there are four ratings:

- **A-Excellent** indicates that at ambient temperature and pressure, the material should not be affected.
- **B-Good** indicates that the material is slightly affected but not to the point of being unsuitable.
- **C-Fair** indicates a degree of reaction that is generally considered unsuitable and should not be used.
- **D-Severe Effect** indicates that the material should not be used under any circumstances

All ratings are taken from data measured at ambient temperature and pressure.

CHEMICAL	COMPATIBILITY
Acetaldehyde	A-Excellent
Acetamide	A-Excellent
Acetate Solvent	A-Excellent
Acetic Acid	D-Severe Effect
Acetic Acid 20%	D-Severe Effect
Acetic Acid 80%	D-Severe Effect
Acetic Acid, Glacial	B-Good
Acetic Anhydride	A-Excellent
Acetone	A-Excellent
Acetyl Bromide	D-Severe Effect
Acetyl Chloride (dry)	B-Good
Acetylene	A-Excellent
Acrylonitrile	A-Excellent
Alcohols:Amyl	A-Excellent
Alcohols:Benzyl	B-Good
Alcohols:Butyl	D-Severe Effect
Alcohols:Diacetone	A-Excellent
Alcohols:Ethyl	A-Excellent
Alcohols:Hexyl	A-Excellent
Alcohols:Isobutyl	A-Excellent
Alcohols:Isopropyl	D-Severe Effect
Alcohols:Methyl	B-Good
Alcohols:Octyl	A-Excellent
Alcohols:Propyl	D-Severe Effect
Aluminum Chloride	B-Good
Aluminum Chloride 20%	D-Severe Effect
Aluminum Fluoride	A-Excellent
Aluminum Hydroxide	A-Excellent
Aluminum Nitrate	A-Excellent
Aluminum Potassium Sulfate 10%	D-Severe Effect
Aluminum Potassium Sulfate 100%	D-Severe Effect
Aluminum Sulfate	A-Excellent
Alums	A-Excellent
Amines	D-Severe Effect
Ammonia 10%	A-Excellent
Ammonia Nitrate	D-Severe Effect
Ammonia, anhydrous	A-Excellent
Ammonia, liquid	B-Good
Ammonium Acetate	A-Excellent
Ammonium Carbonate	A-Excellent
Ammonium Chloride	B-Good
Ammonium Hydroxide	A-Excellent
Ammonium Nitrate	A-Excellent
Ammonium Persulfate	D-Severe Effect
Ammonium Phosphate, Dibasic	C-Fair

Ammonium Phosphate, Monobasic	B-Good
Ammonium Phosphate, Tribasic	B-Good
Ammonium Sulfate	A-Excellent
Ammonium Sulfite	A-Excellent
Amyl Acetate	B-Good
Amyl Alcohol	A-Excellent
Amyl Chloride	C-Fair
Aniline	A-Excellent
Aniline Hydrochloride	D-Severe Effect
Antifreeze	D-Severe Effect
Antimony Trichloride	D-Severe Effect
Aqua Regia (80% HCl, 20% HNO3)	D-Severe Effect
Arochlor 1248	A-Excellent
Arsenic Acid	C-Fair
Arsenic Salts	A-Excellent
Asphalt	A-Excellent
Barium Carbonate	A-Excellent
Barium Chloride	A-Excellent
Barium Cyanide	A-Excellent
Barium Hydroxide	A-Excellent
Barium Nitrate	A-Excellent
Barium Sulfate	A-Excellent
Barium Sulfide	A-Excellent
Beer	A-Excellent
Beet Sugar Liquids	A-Excellent
Benzaldehyde	A-Excellent
Benzene	A-Excellent
Benzene Sulfonic Acid	D-Severe Effect
Benzoic Acid	D-Severe Effect
Benzol	D-Severe Effect
Benzyl Chloride	A-Excellent
Bleaching Liquors	C-Fair
Borax (Sodium Borate)	A-Excellent
Boric Acid	B-Good
Bromine	D-Severe Effect
Butadiene	C-Fair
Butane	A-Excellent
Butanol (Butyl Alcohol)	B-Good
Buttermilk	B-Good
Butyl Amine	A-Excellent
Butyl Ether	A-Excellent
Butyl Phthalate	A-Excellent
Butylacetate	A-Excellent
Butylene	B-Good
Butyric Acid	C-Fair
Calcium Bisulfide	A-Excellent
Calcium Bisulfite	A-Excellent

Calcium Carbonate	A-Excellent
Calcium Chloride	A-Excellent
Calcium Hydroxide	A-Excellent
Calcium Hypochlorite	D-Severe Effect
Calcium Nitrate	A-Excellent
Calcium Oxide	B-Good
Calcium Sulfate	D-Severe Effect
Calgon	A-Excellent
Cane Juice	A-Excellent
Carbolic Acid (Phenol)	D-Severe Effect
Carbon Bisulfide	A-Excellent
Carbon Dioxide (dry)	A-Excellent
Carbon Dioxide (wet)	A-Excellent
Carbon Disulfide	B-Good
Carbon Monoxide	A-Excellent
Carbon Tetrachloride	D-Severe Effect
Carbonated Water	A-Excellent
Carbonic Acid	A-Excellent
Catsup	A-Excellent
Chloric Acid	D-Severe Effect
Chlorine (dry)	D-Severe Effect
Chlorine Water	C-Fair
Chlorine, Anhydrous Liquid	D-Severe Effect
Chloroacetic Acid	D-Severe Effect
Chlorobenzene (Mono)	D-Severe Effect
Chlorobromomethane	C-Fair
Chloroform	A-Excellent
Chlorosulfonic Acid	D-Severe Effect
Chocolate Syrup	A-Excellent
Chromic Acid 10%	D-Severe Effect
Chromic Acid 30%	D-Severe Effect
Chromic Acid 5%	D-Severe Effect
Chromic Acid 50%	D-Severe Effect
Chromium Salts	B-Good
Cider	A-Excellent
Citric Acid	A-Excellent
Cloroxr (Bleach)	A-Excellent
Coffee	A-Excellent
Copper Chloride	D-Severe Effect
Copper Cyanide	D-Severe Effect
Copper Nitrate	D-Severe Effect
Copper Sulfate >5%	D-Severe Effect
Copper Sulfate 5%	D-Severe Effect
Cream	A-Excellent
Cresols	D-Severe Effect
Cresylic Acid	D-Severe Effect
Cupric Acid	D-Severe Effect

Cyclohexane	A-Excellent
Cyclohexanone	A-Excellent
Detergents	A-Excellent
Diacetone Alcohol	A-Excellent
Dichlorobenzene	D-Severe Effect
Dichloroethane	A-Excellent
Diesel Fuel	A-Excellent
Diethyl Ether	A-Excellent
Diethylamine	A-Excellent
Diethylene Glycol	A-Excellent
Dimethyl Aniline	A-Excellent
Dimethyl Formamide	A-Excellent
Dyes	A-Excellent
Epsom Salts (Magnesium Sulfate)	A-Excellent
Ethane	D-Severe Effect
Ethanol	A-Excellent
Ethanolamine	A-Excellent
Ether	A-Excellent
Ethyl Acetate	A-Excellent
Ethyl Chloride	A-Excellent
Ethyl Ether	A-Excellent
Ethylene Chloride	A-Excellent
Ethylene Chlorohydrin	D-Severe Effect
Ethylene Diamine	D-Severe Effect
Ethylene Dichloride	A-Excellent
Ethylene Glycol	A-Excellent
Ethylene Oxide	A-Excellent
Fatty Acids	A-Excellent
Ferric Chloride	A-Excellent
Ferric Nitrate	A-Excellent
Ferric Sulfate	A-Excellent
Ferrous Chloride	D-Severe Effect
Ferrous Sulfate	D-Severe Effect
Fluoboric Acid	D-Severe Effect
Fluorine	D-Severe Effect
Fluosilicic Acid	D-Severe Effect
Formaldehyde 100%	D-Severe Effect
Formaldehyde 40%	A-Excellent
Formic Acid	D-Severe Effect
Freon 12	A-Excellent
Freon 22	B-Good
Freon TF	D-Severe Effect
Freonr 11	D-Severe Effect
Fruit Juice	A-Excellent
Fuel Oils	A-Excellent
Furfural	B-Good
Gallic Acid	A-Excellent

Gasoline (high-aromatic)	A-Excellent
Gasoline, leaded, ref.	A-Excellent
Gasoline, unleaded	A-Excellent
Gelatin	A-Excellent
Glucose	A-Excellent
Glue, P.V.A.	A-Excellent
Glycerin	A-Excellent
Grape Juice	A-Excellent
Heptane	A-Excellent
Hexane	B-Good
Honey	A-Excellent
Hydraulic Oil (Petro)	A-Excellent
Hydraulic Oil (Synthetic)	A-Excellent
Hydrobromic Acid 100%	D-Severe Effect
Hydrobromic Acid 20%	D-Severe Effect
Hydrochloric Acid 100%	D-Severe Effect
Hydrochloric Acid 20%	D-Severe Effect
Hydrochloric Acid 37%	D-Severe Effect
Hydrochloric Acid, Dry Gas	A-Excellent
Hydrocyanic Acid	B-Good
Hydrofluoric Acid 100%	D-Severe Effect
Hydrofluoric Acid 20%	C-Fair
Hydrofluoric Acid 50%	D-Severe Effect
Hydrofluoric Acid 75%	D-Severe Effect
Hydrofluosilicic Acid 100%	D-Severe Effect
Hydrofluosilicic Acid 20%	D-Severe Effect
Hydrogen Gas	A-Excellent
Hydrogen Peroxide 10%	C-Fair
Hydrogen Peroxide 100%	D-Severe Effect
Hydrogen Peroxide 30%	D-Severe Effect
Hydrogen Peroxide 50%	D-Severe Effect
Hydrogen Sulfide (aqua)	C-Fair
Hydrogen Sulfide (dry)	C-Fair
Hydroquinone	D-Severe Effect
Ink	C-Fair
Iodine	A-Excellent
Iodine (in alcohol)	C-Fair
Isooctane	A-Excellent
Isopropyl Acetate	B-Good
Isopropyl Ether	A-Excellent
Isotane	D-Severe Effect
Jet Fuel (JP3, JP4, JP5)	C-Fair
Kerosene	A-Excellent
Ketones	A-Excellent
Lacquer Thinners	A-Excellent
Lacquers	A-Excellent
Lactic Acid	B-Good

Lard	A-Excellent
Latex	A-Excellent
Lead Acetate	A-Excellent
Lead Sulfamate	B-Good
Ligroin	D-Severe Effect
Lime	A-Excellent
Lubricants	A-Excellent
Lye: Ca(OH) ₂ Calcium Hydroxide	A-Excellent
Lye: KOH Potassium Hydroxide	C-Fair
Lye: NaOH Sodium Hydroxide	A-Excellent
Magnesium Bisulfate	A-Excellent
Magnesium Chloride	A-Excellent
Magnesium Hydroxide	B-Good
Magnesium Nitrate	A-Excellent
Magnesium Sulfate (Epsom Salts)	A-Excellent
Maleic Acid	A-Excellent
Malic Acid	A-Excellent
Manganese Sulfate	A-Excellent
Mash	A-Excellent
Mayonnaise	A-Excellent
Melamine	A-Excellent
Mercuric Chloride (dilute)	D-Severe Effect
Mercuric Cyanide	A-Excellent
Mercury	A-Excellent
Methane	A-Excellent
Methanol (Methyl Alcohol)	B-Good
Methyl Acetate	A-Excellent
Methyl Acetone	A-Excellent
Methyl Alcohol 10%	B-Good
Methyl Bromide	B-Good
Methyl Butyl Ketone	D-Severe Effect
Methyl Cellosolve	C-Fair
Methyl Chloride	B-Good
Methyl Dichloride	C-Fair
Methyl Ethyl Ketone	A-Excellent
Methyl Isobutyl Ketone	B-Good
Methyl Isopropyl Ketone	A-Excellent
Methylene Chloride	C-Fair
Milk	A-Excellent
Mineral Spirits	A-Excellent
Molasses	A-Excellent
Monochloroacetic acid	D-Severe Effect
Monoethanolamine	A-Excellent
Morpholine	A-Excellent
Motor oil	A-Excellent
Mustard	A-Excellent
Naphtha	A-Excellent

Naphthalene	A-Excellent
Nickel Chloride	C-Fair
Nickel Nitrate	A-Excellent
Nickel Sulfate	A-Excellent
Nitric Acid (20%)	D-Severe Effect
Nitric Acid (50%)	D-Severe Effect
Nitric Acid (5-10%)	D-Severe Effect
Nitric Acid (Concentrated)	D-Severe Effect
Nitrobenzene	B-Good
Nitromethane	B-Good
Nitrous Oxide	C-Fair
Oils:Aniline	A-Excellent
Oils:Castor	A-Excellent
Oils:Citric	A-Excellent
Oils:Corn	A-Excellent
Oils:Cottonseed	B-Good
Oils:Creosote	D-Severe Effect
Oils:Diesel Fuel (20, 30, 40, 50)	A-Excellent
Oils:Fuel (1, 2, 3, 5A, 5B, 6)	A-Excellent
Oils:Hydraulic Oil (Petro)	A-Excellent
Oils:Hydraulic Oil (Synthetic)	A-Excellent
Oils:Linseed	A-Excellent
Oils:Mineral	A-Excellent
Oils:Olive	A-Excellent
Oils:Pine	A-Excellent
Oils:Rosin	A-Excellent
Oils:Silicone	A-Excellent
Oils:Soybean	A-Excellent
Oils:Transformer	A-Excellent
Oils:Turbine	A-Excellent
Oleic Acid	A-Excellent
Oleum 100%	D-Severe Effect
Oleum 25%	D-Severe Effect
Oxalic Acid (cold)	B-Good
Ozone	D-Severe Effect
Palmitic Acid	A-Excellent
Paraffin	A-Excellent
Pentane	A-Excellent
Perchloric Acid	D-Severe Effect
Perchloroethylene	C-Fair
Petrolatum	D-Severe Effect
Petroleum	A-Excellent
Phenol (10%)	D-Severe Effect
Phenol (Carbolic Acid)	D-Severe Effect
Phosphoric Acid (>40%)	B-Good
Phosphoric Acid (crude)	B-Good
Phosphoric Acid (S40%)	B-Good

Photographic Solutions	A-Excellent
Phthalic Acid	B-Good
Picric Acid	C-Fair
Plating Solutions, Antimony Plating 130°F	D-Severe Effect
Plating Solutions, Arsenic Plating 110°F	A-Excellent
Plating Solutions, Brass Plating: High-Speed Brass Bath 110°F	A-Excellent
Plating Solutions, Brass Plating: Regular Brass Bath 100°F	A-Excellent
Plating Solutions, Bronze Plating: Cu-Cd Bronze Bath R.T.	A-Excellent
Plating Solutions, Bronze Plating: Cu-Sn Bronze Bath 160°F	A-Excellent
Plating Solutions, Bronze Plating: Cu-Zn Bronze Bath 100°F	A-Excellent
Plating Solutions, Cadmium Plating: Cyanide Bath 90°F	A-Excellent
Plating Solutions, Cadmium Plating: Fluoborate Bath 100°F	D-Severe Effect
Plating Solutions, Chromium Plating: Barrel Chrome Bath 95°F	D-Severe Effect
Plating Solutions, Chromium Plating: Black Chrome Bath 115°F	D-Severe Effect
Plating Solutions, Chromium Plating: Chromic-Sulfuric Bath 130°F	D-Severe Effect
Plating Solutions, Chromium Plating: Fluoride Bath 130°F	D-Severe Effect
Plating Solutions, Chromium Plating: Fluosilicate Bath 95°F	D-Severe Effect
Plating Solutions, Copper Plating (Acid): Copper Fluoborate Bath 120°F	D-Severe Effect
Plating Solutions, Copper Plating (Acid): Copper Sulfate Bath R.T.	D-Severe Effect
Plating Solutions, Copper Plating (Cyanide): Copper Strike Bath 120°F	A-Excellent
Plating Solutions, Copper Plating (Cyanide): High-Speed Bath 180°F	A-Excellent
Plating Solutions, Copper Plating (Cyanide): Rochelle Salt Bath 150°F	A-Excellent
Plating Solutions, Copper Plating (Misc): Copper (Electroless)	A-Excellent
Plating Solutions, Copper Plating (Misc): Copper Pyrophosphate	A-Excellent
Plating Solutions, Gold Plating: Acid 75°F	A-Excellent
Plating Solutions, Gold Plating: Cyanide 150°F	A-Excellent
Plating Solutions, Gold Plating: Neutral 75°F	A-Excellent
Plating Solutions, Indium Sulfamate Plating R.T.	D-Severe Effect
Plating Solutions, Iron Plating: Ferrous Am Sulfate Bath 150°F	D-Severe Effect
Plating Solutions, Iron Plating: Ferrous Chloride Bath 190°F	D-Severe Effect
Plating Solutions, Iron Plating: Ferrous Sulfate Bath 150°F	D-Severe Effect
Plating Solutions, Iron Plating: Fluoborate Bath 145°F	D-Severe Effect
Plating Solutions, Iron Plating: Sulfamate 140°F	D-Severe Effect
Plating Solutions, Iron Plating: Sulfate-Chloride Bath 160°F	D-Severe Effect
Plating Solutions, Lead Fluoborate Plating	D-Severe Effect
Plating Solutions, Nickel Plating: Electroless 200°F	D-Severe Effect
Plating Solutions, Nickel Plating: Fluoborate 100-170°F	D-Severe Effect
Plating Solutions, Nickel Plating: High-Chloride 130-160°F	D-Severe Effect
Plating Solutions, Nickel Plating: Sulfamate 100-140°F	A-Excellent
Plating Solutions, Nickel Plating: Watts Type 115-160°F	A-Excellent
Plating Solutions, Rhodium Plating 120°F	D-Severe Effect
Plating Solutions, Silver Plating 80-120°F	A-Excellent
Plating Solutions, Tin-Fluoborate Plating 100°F	D-Severe Effect
Plating Solutions, Tin-Lead Plating 100°F	D-Severe Effect
Plating Solutions, Zinc Plating: Acid Chloride 140°F	D-Severe Effect
Plating Solutions, Zinc Plating: Acid Fluoborate Bath R.T.	D-Severe Effect
Plating Solutions, Zinc Plating: Acid Sulfate Bath 150°F	D-Severe Effect

Plating Solutions, Zinc Plating: Alkaline Cyanide Bath R.T.	A-Excellent
Potash (Potassium Carbonate)	A-Excellent
Potassium Bicarbonate	A-Excellent
Potassium Bromide	A-Excellent
Potassium Chlorate	C-Fair
Potassium Chloride	A-Excellent
Potassium Chromate	B-Good
Potassium Cyanide Solutions	A-Excellent
Potassium Dichromate	B-Good
Potassium Ferricyanide	B-Good
Potassium Ferrocyanide	B-Good
Potassium Hydroxide (Caustic Potash)	C-Fair
Potassium Hypochlorite	B-Good
Potassium Iodide	A-Excellent
Potassium Nitrate	B-Good
Potassium Permanganate	D-Severe Effect
Potassium Sulfate	A-Excellent
Potassium Sulfide	A-Excellent
Propane (liquefied)	A-Excellent
Propylene Glycol	A-Excellent
Pyridine	C-Fair
Resorcinal	D-Severe Effect
Rosins	A-Excellent
Rum	A-Excellent
Salad Dressings	A-Excellent
Salicylic Acid	A-Excellent
Salt Brine (NaCl saturated)	A-Excellent
Sea Water	A-Excellent
Shellac (Bleached)	A-Excellent
Shellac (Orange)	A-Excellent
Silicone	A-Excellent
Silver Nitrate	A-Excellent
Soap Solutions	A-Excellent
Soda Ash (see Sodium Carbonate)	B-Good
Sodium Acetate	B-Good
Sodium Aluminate	A-Excellent
Sodium Benzoate	B-Good
Sodium Bicarbonate	A-Excellent
Sodium Bisulfate	A-Excellent
Sodium Bisulfite	C-Fair
Sodium Borate (Borax)	A-Excellent
Sodium Bromide	B-Good
Sodium Carbonate	B-Good
Sodium Chlorate	D-Severe Effect
Sodium Chloride	A-Excellent
Sodium Chromate	C-Fair
Sodium Cyanide	A-Excellent

Sodium Fluoride	B-Good
Sodium Hydrosulfite	A-Excellent
Sodium Hydroxide (20%)	A-Excellent
Sodium Hydroxide (50%)	A-Excellent
Sodium Hydroxide (80%)	C-Fair
Sodium Hypochlorite (<20%)	D-Severe Effect
Sodium Hypochlorite (100%)	D-Severe Effect
Sodium Metaphosphate	A-Excellent
Sodium Nitrate	A-Excellent
Sodium Perborate	B-Good
Sodium Peroxide	A-Excellent
Sodium Polyphosphate	A-Excellent
Sodium Silicate	A-Excellent
Sodium Sulfate	A-Excellent
Sodium Sulfide	A-Excellent
Sodium Sulfite	D-Severe Effect
Sodium Tetraborate	A-Excellent
Sodium Thiosulfate (hypo)	B-Good
Sorghum	A-Excellent
Soy Sauce	A-Excellent
Stannic Chloride	B-Good
Stannous Chloride	C-Fair
Starch	A-Excellent
Stearic Acid	A-Excellent
Stoddard Solvent	A-Excellent
Styrene	A-Excellent
Sugar (Liquids)	A-Excellent
Sulfate (Liquors)	B-Good
Sulfur Chloride	A-Excellent
Sulfur Dioxide	C-Fair
Sulfur Dioxide (dry)	B-Good
Sulfur Hexafluoride	B-Good
Sulfur Trioxide	D-Severe Effect
Sulfur Trioxide (dry)	A-Excellent
Sulfuric Acid (<10%)	C-Fair
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	D-Severe Effect
Tallow	A-Excellent
Tannic Acid	C-Fair
Tanning Liquors	A-Excellent
Tartaric Acid	B-Good
Tetrachloroethane	C-Fair
Tetrachloroethylene	A-Excellent
Tetrahydrofuran	A-Excellent

Toluene (Toluol)	A-Excellent
Tomato Juice	A-Excellent
Trichloroacetic Acid	C-Fair
Trichloroethane	C-Fair
Trichloroethylene	C-Fair
Tricresylphosphate	A-Excellent
Triethylamine	A-Excellent
Trisodium Phosphate	A-Excellent
Turpentine	B-Good
Urea	A-Excellent
Uric Acid	A-Excellent
Urine	B-Good
Varnish	A-Excellent
Vegetable Juice	A-Excellent
Vinegar	A-Excellent
Vinyl Chloride	A-Excellent
Water, Acid, Mine	A-Excellent
Water, Deionized	A-Excellent
Water, Distilled	A-Excellent
Water, Fresh	A-Excellent
Water, Salt	A-Excellent
Weed Killers	A-Excellent
Whiskey & Wines	A-Excellent
White Liquor (Pulp Mill)	A-Excellent
White Water (Paper Mill)	A-Excellent
Xylene	A-Excellent
Zinc Chloride	A-Excellent
Zinc Hydrosulfite	A-Excellent
Zinc Sulfate	A-Excellent