

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Acetaldehyde	A	A	C ¹	D	A
Acetamide	A	A	D	A	A
Acetate Solvent	N/A	A	N/A	N/A	A
Acetic Acid	D	D	B ¹	N/A	B
Acetic Acid 20%	C	D	A ¹	B-C	A
Acetic Acid 80%	D	D	B ¹	D	B
Acetic Acid, Glacial	D	B	B ¹	D	A
Acetic Anhydride	D	A ¹	D	D	A
Acetone	A	A	D	D	A
Acetyl Bromide	N/A	D	N/A	N/A	N/A
Acetyl Chloride (dry)	D	B	D	N/A	A
Acetylene	A	A	D	N/A	A
Acrylonitrile	N/A	A ¹	D	D	A ¹
Adipic Acid	N/A	N/A	N/A	N/A	A ²
Alcohols: Amyl	A	A ¹	B ¹	D	A
Alcohols: Benzyl	A	B ¹	D	D	B
Alcohols: Butyl	A	D	A ²	D	A
Alcohols: Diacetone	A	A	N/A	D	A
Alcohols: Ethyl	A ¹	A ¹	B ²	D	A
Alcohols: Hexyl	A	A	N/A	D	A
Alcohols: Isobutyl	A	A ¹	A	D	A
Alcohols: Isopropyl	A	D	A ²	D	B
Alcohols: Methyl	A	B ¹	B ¹	D	A
Alcohols: Octyl	A	A	N/A	D	A
Alcohols: Propyl	A	D	N/A	D	A
Aluminum Chloride	N/A	B ¹	A ¹	A	B
Aluminum Chloride 20%	C	D	A ¹	A	C ¹
Aluminum Fluoride	C	A ¹	N/A	N/A	D
Aluminum Hydroxide	A	A ¹	B ¹	N/A	C ¹
Aluminum Nitrate	B ¹	A ¹	A ¹	N/A	A
Aluminum Potassium Sulfate 10%	C	D	A ¹	N/A	A
Aluminum Potassium Sulfate 100%	C	D	A ²	N/A	B ²
Aluminum Sulfate	B ¹	A ²	A	A	B ²
Alums	N/A	A	N/A	N/A	A
Amines	D	D	D	N/A	A
Ammonia 10%	D	A	D	A	A
Ammonia Nitrate	C	D	N/A	N/A	A
Ammonia, anhydrous	D	A ¹	D	N/A	A ²
Ammonia, liquid	D	B ¹	D	A	A ²
Ammonium Acetate	N/A	A	B	N/A	A
Ammonium Bifluoride	D	N/A	N/A	N/A	B ¹
Ammonium Carbonate	D	A ¹	N/A	N/A	B
Ammonium Caseinate	D	N/A	N/A	N/A	A
Ammonium Chloride	B	B	A ²	E	B ²

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Ammonium Hydroxide	C	A	D	E	A ¹
Ammonium Nitrate	A ²	A ¹	N/A	N/A	A
Ammonium Oxalate	B	N/A	A ¹	N/A	A
Ammonium Persulfate	D	D	N/A	N/A	B
Ammonium Phosphate, Dibasic	B ²	C ¹	A ²	N/A	C
Ammonium Phosphate, Monobasic	B	B	N/A	N/A	C
Ammonium Phosphate, Tribasic	B	B	N/A	N/A	B
Ammonium Sulfate	B ¹	A ¹	A ²	A	B
Ammonium Sulfite	D	A ¹	N/A	N/A	B
Ammonium Thiosulfate	B	N/A	N/A	N/A	A
Amyl Acetate	B ¹	B ²	D	A	A
Amyl Alcohol	A	A ¹	B ¹	D	A
Amyl Chloride	A	C ¹	D	N/A	A ²
Aniline	A ¹	A ²	D	D	B
Aniline Hydrochloride	N/A	D	D	N/A	D
Antifreeze	D	D	N/A	N/A	A
Antimony Trichloride	N/A	D	A ²	N/A	D
Aqua Regia (80% HCl, 20% HNO ₃)	D	D	D	D	D
Arochlor 1248	N/A	A ¹	N/A	N/A	B
Aromatic Hydrocarbons	A	N/A	N/A	N/A	C
Arsenic Acid	D	C ¹	A ¹	A	A ²
Arsenic Salts	N/A	A	N/A	N/A	N/A
Asphalt	B ²	A	D	N/A	A
Barium Carbonate	A	A ¹	A ²	N/A	B
Barium Chloride	A	A	A	A	A ¹
Barium Cyanide	B	A ¹	N/A	N/A	A ²
Barium Hydroxide	D	A ¹	D	N/A	B
Barium Nitrate	B ²	A ¹	D	N/A	B
Barium Sulfate	B ²	A ¹	D	N/A	B ¹
Barium Sulfide	A	A ¹	N/A	N/A	B ²
Beer	A ¹	A ¹	A ²	N/A	A
Beet Sugar Liquids	B	A	N/A	N/A	A
Benzaldehyde	A	A ¹	D	D	B
Benzene	A ¹	A ¹	D	D	B
Benzene Sulfonic Acid	N/A	D	D	N/A	B
Benzoic Acid	B	D	B ¹	A	B
Benzol	A	D	D	D	A ¹
Benzonitrile	N/A	N/A	A ¹	N/A	D
Benzyl Chloride	A	A ²	N/A	N/A	B ¹
Bleach: Clorox	D	A	N/A	N/A	A
Bleaching Liquors	N/A	C	N/A	N/A	N/A
Borax (Sodium Borate)	B	A	N/A	N/A	A
Boric Acid	A	B	A	N/A	A ¹
Brewery Slop	B	N/A	N/A	N/A	A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Bromine	D	D	C ¹	D	D
Butadiene	A	C ¹	D	N/A	A ¹
Butane	A	A ²	D	A	A ²
Butanol (Butyl Alcohol)	A	B ¹	B ¹	B-C	A ¹
Butter	A	N/A	N/A	N/A	A
Buttermilk	A	B ¹	A ¹	N/A	A
Butyl Amine	C ¹	A ²	D	N/A	A
Butyl Ether	D	A ²	N/A	N/A	A ¹
Butyl Phthalate	N/A	A ²	D	N/A	B ²
Butylacetate	A	A	D	N/A	A
Butylene	A	B ¹	D	N/A	A
Butyric Acid	A	C ¹	D	D	B ²
Calcium Bisulfate	N/A	N/A	D	N/A	A
Calcium Bisulfide	D	A	N/A	N/A	B
Calcium Bisulfite	D	A ²	D	N/A	A
Calcium Carbonate	A	A	C ²	N/A	B
Calcium Chlorate	A	N/A	N/A	N/A	N/A
Calcium Chloride	D	A ¹	A	A	B ²
Calcium Hydroxide	D	A ²	D	C	B
Calcium Hypochlorite	D	D	D	A	B ¹
Calcium Nitrate	D	A ¹	A ²	N/A	B ²
Calcium Oxide	A	B	N/A	N/A	A
Calcium Sulfate	D	D	A ²	N/A	B
Calgon	A	A	N/A	N/A	A
Cane Juice	A	A	N/A	N/A	A
Carbolic Acid (Phenol)	D	D	D	D	B
Carbon Bisulfide	A	A	N/A	N/A	B
Carbon Dioxide (dry)	A	A ¹	N/A	A	A ¹
Carbon Dioxide (wet)	A	A ¹	N/A	A	A ¹
Carbon Disulfide	A ¹	B ¹	D	D	B
Carbon Monoxide	A	A ¹	N/A	A	A
Carbon Tetrachloride	B ¹	D	D	C	B
Carbon Tetrachloride (dry)	N/A	N/A	N/A	D	B ²
Carbon Tetrachloride (wet)	A ¹	N/A	N/A	D	A ²
Carbonated Water	A	A	N/A	N/A	A
Carbonic Acid	B ¹	A ¹	A ¹	N/A	A
Catsup	B	A	N/A	N/A	A
Chloric Acid	D	D	N/A	N/A	C ¹
Chlorinated Glue	D	N/A	N/A	N/A	A
Chlorine (dry)	D	D	A	C	B
Chlorine Water	D	C ¹	B	C	C
Chlorine, Anhydrous Liquid	A ¹	D	C	D	C
Chloroacetic Acid	D	D	D	D	A ¹
Chlorobenzene (Mono)	D	D	D	N/A	B

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Chlorobromomethane	N/A	C	N/A	N/A	N/A
Chloroform	A	A	D	D	A
Chlorosulfonic Acid	D	D	C ¹	D	B ²
Chocolate Syrup	A	A	A	N/A	A
Chromic Acid 10%	D	D	B	C	B
Chromic Acid 30%	D	D	C	D	B ²
Chromic Acid 5%	D	D	B	N/A	A
Chromic Acid 50%	D	D	D	D	B ²
Chromium Salts	N/A	B	N/A	N/A	N/A
Cider	A	A	A	N/A	A
Citric Acid	B ¹	A ¹	A ¹	A	A ²
Citric Oils	B	N/A	N/A	N/A	A
Clorox (Bleach)	D	A	N/A	A	A
Coffee	A	A	N/A	N/A	A
Copper Chloride	A	D	N/A	N/A	D
Copper Cyanide	A	D	D	N/A	B
Copper Fluoborate	B	N/A	N/A	N/A	D
Copper Nitrate	A	D	D	N/A	A ²
Copper Sulfate >5%	D	D	A ¹	A	B
Copper Sulfate 5%	D	D	A ¹	A	B
Cream	A	A	N/A	N/A	A
Cresols	D	D	D	D	A
Cresylic Acid	D	D	D	N/A	A
Cupric Acid	N/A	D	A ¹	N/A	B ²
Cyanic Acid	D	N/A	N/A	N/A	A
Cyclohexane	A ¹	A	B	B	A
Cyclohexanone	A	A	D	D	A ²
Detergents	A ¹	A ¹	A ¹	N/A	A ¹
Diacetone Alcohol	N/A	A ¹	D	D	B
Dichlorobenzene	N/A	D	D	N/A	B ¹
Dichloroethane	A ¹	A ¹	D	N/A	B
Diesel Fuel	A	A	A ²	A	A ¹
Diethyl Ether	N/A	A ¹	D	D	B ²
Diethylamine	B	A	D	N/A	A
Diethylene Glycol	A ¹	A ¹	B ¹	A	A
Dimethyl Aniline	D	A	D	N/A	B ²
Dimethyl Formamide	D	A	D	N/A	B
Diphenyl	N/A	N/A	N/A	N/A	B
Diphenyl Oxide	D	N/A	N/A	N/A	A
Dyes	C	A	N/A	N/A	A
Epsom Salts (Magnesium Sulfate)	B	A ¹	A ¹	N/A	B
Ethane	A ¹	D	N/A	N/A	A ¹
Ethanol	A ¹	A ¹	A	D	A
Ethanolamine	D	A	N/A	N/A	A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Ether	A ¹	A	N/A	D	A
Ethyl Acetate	A	A ²	D	D	B
Ethyl Benzoate	N/A	N/A	D	N/A	N/A
Ethyl Chloride	A ¹	A ¹	D	D	A
Ethyl Ether	A ¹	A ¹	N/A	N/A	B
Ethyl Sulfate	N/A	N/A	N/A	N/A	D
Ethylene Bromide	N/A	N/A	D	N/A	A
Ethylene Chloride	A ¹	A	D	A	B
Ethylene Chlorohydrin	D	D	D	N/A	B
Ethylene Diamine	D	D	A ²	N/A	B
Ethylene Dichloride	B ¹	A ¹	D	N/A	B
Ethylene Glycol (PURE)	B	A	B ¹	B	B
Ethylene Oxide	D	A ¹	C ¹	B	B
Fatty Acids	A	A ¹	B ¹	N/A	A
Ferric Chloride	D	A	A ²	N/A	D
Ferric Nitrate	D	A ¹	A ¹	N/A	B
Ferric Sulfate	D	A ¹	A ¹	N/A	A
Ferrous Chloride	D	D	D	N/A	D
Ferrous Sulfate	D	D	A ¹	A	B
Fluoboric Acid	A ¹	D	N/A	N/A	B
Fluorine	D	D	C	N/A	A
Fluosilicic Acid	A ¹	D	A ¹	N/A	B
Formaldehyde 100%	A	D	A ²	N/A	A
Formaldehyde 40%	A ²	A	A ¹	A	A
Formic Acid	A ²	D	A ¹	D	A ¹
Freon 113	A	N/A	B ¹	N/A	N/A
Freon 12	B	A ¹	N/A	N/A	B
Freon 22	A	B	N/A	N/A	A
Freon TF	A	D	B	N/A	A
Freonr 11	D	D	N/A	N/A	A
Fruit Juice	D	A	N/A	N/A	A
Fuel Oils	A	A ¹	B ¹	N/A	A
Furan Resin	D	N/A	N/A	N/A	A
Furfural	A	B	D	N/A	B
Gallic Acid	N/A	A	N/A	N/A	B
Gasoline (high-aromatic)	B	A	C	D	A
Gasoline, leaded, ref.	A	A ²	C	D	A ²
Gasoline, unleaded	A	A ²	C	D	A ²
Gelatin	B	A ¹	N/A	N/A	A ²
Glucose	A	A	A ¹	N/A	A
Glue, P.V.A.	A	A ¹	N/A	N/A	A ²
Glycerin	A	A ¹	A ²	A	A
Glycolic Acid	A	N/A	N/A	N/A	A
Gold Monocyanide	A	N/A	N/A	N/A	A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Grape Juice	A	A	N/A	N/A	A
Grease	D	N/A	N/A	N/A	A
Heptane	A	A	B	A	A
Hexane	A	B	D	A	A
Honey	A	A	A ¹	N/A	A
Hydraulic Oil (Petro)	B	A ¹	N/A	N/A	A
Hydraulic Oil (Synthetic)	N/A	A ¹	N/A	N/A	A
Hydrazine	B	N/A	D	N/A	A
Hydrobromic Acid 100%	D	D	N/A	N/A	D
Hydrobromic Acid 20%	C	D	B	D	D
Hydrochloric Acid 100%	C	D	D	N/A	D
Hydrochloric Acid 20%	C	D	B ¹	B	D
Hydrochloric Acid 37%	C	D	D	D	D
Hydrochloric Acid, Dry Gas	N/A	A ¹	N/A	A	D
Hydrocyanic Acid	B	B	N/A	N/A	A
Hydrocyanic Acid (Gas 10%)	C	N/A	B ¹	N/A	N/A
Hydrofluoric Acid 100%	D	D	D	N/A	B ¹
Hydrofluoric Acid 20%	D	C ¹	D	N/A	D
Hydrofluoric Acid 50%	D	D	D	D	D
Hydrofluoric Acid 75%	D	D	D	N/A	D
Hydrofluosilicic Acid 100%	A	D	N/A	N/A	D
Hydrofluosilicic Acid 20%	B	D	N/A	N/A	B ¹
Hydrogen Gas	N/A	A ²	A ²	N/A	A
Hydrogen Peroxide 10%	D	C ¹	A ²	A	B
Hydrogen Peroxide 100%	D	D	A	D	A ²
Hydrogen Peroxide 30%	D	D	A ²	C	B
Hydrogen Peroxide 50%	D	D	A ²	C	A ²
Hydrogen Sulfide (aqua)	C	C ¹	A	A	A
Hydrogen Sulfide (dry)	N/A	C ¹	N/A	N/A	A
Hydroquinone	A	D	N/A	N/A	B
Hydroxyacetic Acid 70%	A	N/A	N/A	N/A	N/A
Ink	B	C	N/A	N/A	C
Iodine	D	A	B	A	D
Iodine (in alcohol)	D	C	N/A	N/A	N/A
Iodoform	N/A	N/A	N/A	N/A	A
Isooctane	N/A	A ¹	B ¹	N/A	A ¹
Isopropyl Acetate	D	B ¹	D	N/A	A
Isopropyl Ether	D	A ¹	D	N/A	A
Isotane	N/A	D	N/A	N/A	N/A
Jet Fuel (JP3, JP4, JP5)	A ¹	C	B	N/A	A
Kerosene	A ²	A	D	D	A
Ketones	D	A ²	D	N/A	A
Lacquer Thinners	D	A ¹	B	N/A	A
Lacquers	D	A ¹	D	N/A	A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Lactic Acid	B	B	A	B	B ¹
Lard	A	A ¹	A ¹	N/A	A
Latex	B	A ¹	N/A	N/A	A ²
Lead Acetate	B	A	A	N/A	B ¹
Lead Nitrate	N/A	N/A	N/A	N/A	B ¹
Lead Sulfamate	A	B ¹	A ¹	N/A	C
Ligroin	B	D	N/A	N/A	A
Lime	B	A ¹	N/A	N/A	A
Linoleic Acid	B	N/A	N/A	N/A	A
Lithium Chloride	A	N/A	B ¹	N/A	A2
Lithium Hydroxide	N/A	N/A	D	N/A	B
Lubricants	A	A ¹	A ¹	N/A	A ²
Lye: Ca(OH) ₂ Calcium Hydroxide	D	A ²	D	C	B
Lye: KOH Potassium Hydroxide	A	C	D	A	A ¹
Lye: NaOH Sodium Hydroxide	C	A	D	B	B ¹
Magnesium Bisulfate	N/A	A ¹	A ¹	N/A	A ¹
Magnesium Carbonate	A	N/A	A ¹	N/A	B
Magnesium Chloride	B ¹	A ¹	A ²	A	D
Magnesium Hydroxide	A	B ¹	A ¹	N/A	A ¹
Magnesium Nitrate	A	A ¹	A ¹	N/A	B
Magnesium Oxide	A	N/A	N/A	N/A	A
Magnesium Sulfate (Epsom Salts)	B	A ¹	A ¹	A	B
Maleic Acid	A	A	N/A	N/A	B
Maleic Anhydride	D	N/A	N/A	N/A	A
Malic Acid	A	A	N/A	N/A	A ²
Manganese Sulfate	A ¹	A ²	A ¹	N/A	B ²
Mash	A	A	N/A	N/A	A
Mayonnaise	A	A	N/A	N/A	A
Melamine	A	A	N/A	N/A	D
Mercuric Chloride (dilute)	B	D	A	A	D
Mercuric Cyanide	N/A	A ²	N/A	N/A	C
Mercurous Nitrate	N/A	N/A	A ²	N/A	A ¹
Mercury	A	A	D	A	A
Methane	A	A	N/A	A	A
Methanol (Methyl Alcohol)	A	B ¹	B ¹	D	A
Methyl Acetate	B	A ²	D	N/A	B
Methyl Acetone	D	A	N/A	N/A	A
Methyl Acrylate	B	N/A	N/A	N/A	N/A
Methyl Alcohol 10%	A	B ¹	B ¹	N/A	A
Methyl Bromide	D	B ¹	N/A	N/A	A
Methyl Butyl Ketone	D	D	D	N/A	A
Methyl Cellosolve	D	C	D	N/A	B
Methyl Chloride	B	B ¹	D	A	A
Methyl Dichloride	D	C	N/A	N/A	N/A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Methyl Ethyl Ketone	C	A ¹	D	D	A
Methyl Ethyl Ketone Peroxide	N/A	N/A	N/A	N/A	N/A
Methyl Isobutyl Ketone	N/A	B ²	D	D	B
Methyl Isopropyl Ketone	N/A	A	D	N/A	A
Methyl Methacrylate	D	N/A	N/A	N/A	B
Methylamine	D	N/A	N/A	N/A	A
Methylene Chloride	B	C ¹	D	N/A	B
Milk	A	A	A	N/A	A
Mineral Spirits	A	A	C	N/A	A
Molasses	A	A ¹	N/A	N/A	A
Monochloroacetic acid	D	D	D	N/A	A ¹
Monoethanolamine	D	A	N/A	N/A	A
Morpholine	N/A	A ²	D	N/A	A ¹
Motor oil	B	A ²	A	A	A ²
Mustard	C	A	A	N/A	A
Naphtha	A ¹	A	B	N/A	A
Naphthalene	A ¹	A ¹	N/A	N/A	A
Natural Gas	B	N/A	N/A	N/A	A
Nickel Chloride	A	C ¹	A ²	N/A	C
Nickel Nitrate	N/A	A ¹	D	N/A	B ²
Nickel Sulfate	A	A ¹	A	A	B ¹
Nitrating Acid (<15% HNO3)	N/A	N/A	A	N/A	D
Nitrating Acid (>15% H2SO4)	D	N/A	N/A	N/A	C
Nitrating Acid (S1% Acid)	N/A	N/A	N/A	N/A	A
Nitrating Acid (S15% H2SO4)	N/A	N/A	N/A	N/A	C
Nitric Acid (20%)	D	D	B ¹	A	A
Nitric Acid (50%)	D	D	B	B-C	A ¹
Nitric Acid (5-10%)	D	D	A	N/A	A
Nitric Acid (Concentrated)	D	D	C ¹	D	A ¹
Nitrobenzene	C	B ¹	D	D	B
Nitrogen Fertilizer	N/A	N/A	N/A	N/A	N/A
Nitromethane	A	B ¹	D	N/A	A ¹
Nitrous Acid	N/A	N/A	N/A	N/A	B
Nitrous Oxide	N/A	C	N/A	A	B
Oils:Aniline	D	A	N/A	N/A	A
Oils:Anise	D	N/A	N/A	N/A	A
Oils:Bay	D	N/A	N/A	N/A	A
Oils:Bone	D	N/A	N/A	N/A	A
Oils:Castor	A	A	N/A	N/A	A
Oils:Cinnamon	D	N/A	C	N/A	A
Oils:Citric	A	A	A	N/A	A
Oils:Clove	N/A	N/A	N/A	N/A	A
Oils:Coconut	A	N/A	N/A	N/A	A
Oils:Cod Liver	B	N/A	N/A	N/A	A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Oils: Corn	A	A	N/A	N/A	A
Oils: Cottonseed	A	B	N/A	N/A	A
Oils: Creosote	D	D	N/A	N/A	B
Oils: Diesel Fuel (20, 30, 40, 50)	D	A	N/A	N/A	A
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	D	A	B	N/A	A
Oils: Ginger	A	N/A	N/A	N/A	D
Oils: Hydraulic Oil (Petro)	B	A ¹	N/A	N/A	A
Oils: Hydraulic Oil (Synthetic)	N/A	A ¹	N/A	N/A	A
Oils: Lemon	D	N/A	N/A	N/A	A
Oils: Linseed	A	A ¹	N/A	N/A	A
Oils: Mineral	A	A	A	A	A
Oils: Olive	A	A ¹	A ²	N/A	A
Oils: Orange	D	N/A	C ¹	N/A	A
Oils: Palm	A	N/A	N/A	N/A	A
Oils: Peanut	A	N/A	N/A	N/A	A
Oils: Peppermint	D	N/A	N/A	N/A	A
Oils: Pine	A	A	B	N/A	A
Oils: Rapeseed	A	N/A	N/A	N/A	A
Oils: Rosin	N/A	A ¹	N/A	N/A	A ¹
Oils: Sesame Seed	D	N/A	N/A	N/A	A
Oils: Silicone	A	A ¹	A	C	A
Oils: Soybean	A	A	N/A	N/A	A
Oils: Sperm (whale)	D	N/A	N/A	N/A	A
Oils: Tanning	D	N/A	N/A	N/A	A
Oils: Transformer	A	A ¹	N/A	N/A	A
Oils: Turbine	A	A	N/A	N/A	A
Oleic Acid	A	A	N/A	N/A	A
Oleum 100%	D	D	N/A	N/A	A
Oleum 25%	D	D	N/A	N/A	B
Oxalic Acid (cold)	B	B ²	A	A	A
Ozone	C	D	D	A	A
Palmitic Acid	A	A	N/A	N/A	A ¹
Paraffin	A	A ¹	A ¹	A	A
Pentane	B	A ¹	A	N/A	C
Perchloric Acid	C	D	D	A	C
Perchloroethylene	B	C ¹	D	D	A ¹
Petrolatum	B	D	N/A	N/A	A
Petroleum	B	A ¹	C	N/A	A ¹
Phenol (10%)	B	D	B ¹	D	B
Phenol (Carbolic Acid)	D	D	D	D	B
Phosphoric Acid (>40%)	D	B ¹	A	A-B	D
Phosphoric Acid (crude)	D	B ¹	A	N/A	B
Phosphoric Acid (molten)	D	N/A	N/A	N/A	C
Phosphoric Acid (S40%)	D	B ¹	A	N/A	C

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Phosphoric Acid Anhydride	D	N/A	D	N/A	N/A
Phosphorus	B	N/A	N/A	N/A	A ²
Phosphorus Trichloride	D	N/A	C	D	A ²
Photographic Developer	D	N/A	A ²	A	A
Photographic Solutions	D	A ¹	A ¹	A	N/A
Phthalic Acid	C	B ¹	N/A	N/A	A
Phthalic Anhydride	C	N/A	A ¹	N/A	A
Picric Acid	A	C ¹	D	A	B
Plating Solutions, Antimony Plating 130°F	A	D	N/A	N/A	A
Plating Solutions, Arsenic Plating 110°F	A	A	N/A	N/A	A
Plating Solutions, Brass Plating: High-Speed Brass Bath 110°F	A	A	N/A	N/A	A
Plating Solutions, Brass Plating: Regular Brass Bath 100°F	A	A	N/A	N/A	A
Plating Solutions, Bronze Plating: Cu-Cd Bronze Bath R.T.	A	A	N/A	N/A	A
Plating Solutions, Bronze Plating: Cu-Sn Bronze Bath 160°F	B	A	N/A	N/A	A
Plating Solutions, Bronze Plating: Cu-Zn Bronze Bath 100°F	A	A	N/A	N/A	A
Plating Solutions, Cadmium Plating: Cyanide Bath 90°F	A	A	N/A	N/A	A
Plating Solutions, Cadmium Plating: Fluoborate Bath 100°F	C	D	N/A	N/A	A
Plating Solutions, Chromium Plating: Barrel Chrome Bath 95°F	D	D	N/A	N/A	D
Plating Solutions, Chromium Plating: Black Chrome Bath 115°F	D	D	N/A	N/A	C
Plating Solutions, Chromium Plating: Chromic-Sulfuric Bath 130°F	D	D	N/A	N/A	C
Plating Solutions, Chromium Plating: Fluoride Bath 130°F	D	D	N/A	N/A	D
Plating Solutions, Chromium Plating: Fluosilicate Bath 95°F	D	D	N/A	N/A	C
Plating Solutions, Copper Plating (Acid): Copper Fluoborate Bath 120°F	C	D	N/A	N/A	D
Plating Solutions, Copper Plating (Acid): Copper Sulfate Bath R.T.	A	D	N/A	N/A	D
Plating Solutions, Copper Plating (Cyanide): Copper Strike Bath 120°F	A	A	N/A	N/A	A
Plating Solutions, Copper Plating (Cyanide): High-Speed Bath 180°F	B	A	N/A	N/A	A
Plating Solutions, Copper Plating (Cyanide): Rochelle Salt Bath 150°F	B	A	N/A	N/A	A
Plating Solutions, Copper Plating (Misc): Copper (Electroless)	D	A	N/A	N/A	N/A
Plating Solutions, Copper Plating (Misc): Copper Pyrophosphate	A	A	N/A	N/A	A
Plating Solutions, Gold Plating: Acid 75°F	N/A	A	N/A	N/A	C
Plating Solutions, Gold Plating: Cyanide 150°F	N/A	A	N/A	N/A	A
Plating Solutions, Gold Plating: Neutral 75°F	N/A	A	N/A	N/A	C
Plating Solutions, Indium Sulfamate Plating R.T.	N/A	D	N/A	N/A	C
Plating Solutions, Iron Plating: Ferrous Am Sulfate Bath 150°F	N/A	D	N/A	N/A	C
Plating Solutions, Iron Plating: Ferrous Chloride Bath 190°F	N/A	D	N/A	N/A	D
Plating Solutions, Iron Plating: Ferrous Sulfate Bath 150°F	N/A	D	N/A	N/A	C
Plating Solutions, Iron Plating: Fluoborate Bath 145°F	N/A	D	N/A	N/A	D
Plating Solutions, Iron Plating: Sulfamate 140°F	N/A	D	N/A	N/A	D
Plating Solutions, Iron Plating: Sulfate-Chloride Bath 160°F	N/A	D	N/A	N/A	D
Plating Solutions, Lead Fluoborate Plating	N/A	D	N/A	N/A	C
Plating Solutions, Nickel Plating: Electroless 200°F	N/A	D	N/A	N/A	N/A
Plating Solutions, Nickel Plating: Fluoborate 100-170°F	N/A	D	N/A	N/A	C
Plating Solutions, Nickel Plating: High-Chloride 130-160°F	N/A	D	N/A	N/A	C
Plating Solutions, Nickel Plating: Sulfamate 100-140°F	N/A	A	N/A	N/A	C

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Plating Solutions, Nickel Plating: Watts Type 115-160°F	N/A	A	N/A	N/A	C
Plating Solutions, Rhodium Plating 120°F	N/A	D	N/A	N/A	D
Plating Solutions, Silver Plating 80-120°F	N/A	A	N/A	N/A	A
Plating Solutions, Tin-Fluoborate Plating 100°F	N/A	D	N/A	N/A	C
Plating Solutions, Tin-Lead Plating 100°F	N/A	D	N/A	N/A	C
Plating Solutions, Zinc Plating: Acid Chloride 140°F	N/A	D	N/A	N/A	D
Plating Solutions, Zinc Plating: Acid Fluoborate Bath R.T.	N/A	D	N/A	N/A	C
Plating Solutions, Zinc Plating: Acid Sulfate Bath 150°F	N/A	D	N/A	N/A	C
Plating Solutions, Zinc Plating: Alkaline Cyanide Bath R.T.	N/A	A	N/A	N/A	A
Potash (Potassium Carbonate)	B	A	N/A	A	B
Potassium Bicarbonate	C	A ¹	N/A	A	B
Potassium Bromide	A	A ¹	A ¹	N/A	B
Potassium Chlorate	B	C ¹	A ¹	N/A	B
Potassium Chloride	A	A ¹	A	A	A ¹
Potassium Chromate	C	B	N/A	N/A	B ¹
Potassium Cyanide Solutions	C	A ¹	N/A	N/A	B ¹
Potassium Dichromate	A	B ¹	A ¹	N/A	B ¹
Potassium Ferricyanide	B ¹	B ¹	N/A	N/A	B ¹
Potassium Ferrocyanide	N/A	B ¹	N/A	N/A	B
Potassium Hydroxide (Caustic Potash)	A	C ¹	D	A	A ¹
Potassium Hypochlorite	N/A	B ¹	N/A	N/A	B
Potassium Iodide	N/A	A ¹	N/A	N/A	A ¹
Potassium Nitrate	A	B ¹	A ¹	A	B
Potassium Oxalate	N/A	N/A	N/A	N/A	B ¹
Potassium Permanganate	A	D	A ²	C	B
Potassium Sulfate	B	A ¹	A ¹	N/A	A
Potassium Sulfide	N/A	A	N/A	N/A	B
Propane (liquefied)	A	A ¹	C ¹	N/A	A
Propylene	N/A	N/A	N/A	N/A	A ¹
Propylene Glycol	B	A	B ¹	N/A	B
Pyridine	B	C ¹	D	D	A
Pyrogalllic Acid	D	N/A	N/A	N/A	B
Resorcinal	N/A	D	B ¹	N/A	N/A
Rosins	B	A ¹	N/A	N/A	A ¹
Rum	A	A	N/A	N/A	A
Rust Inhibitors	A	N/A	N/A	N/A	A
Salad Dressings	A	A	N/A	N/A	A
Salicylic Acid	D	A ¹	A ¹	N/A	B ²
Salt Brine (NaCl saturated)	N/A	A	A	N/A	A ²
Sea Water	A	A ²	A ²	N/A	C
Shellac (Bleached)	A	A ¹	N/A	N/A	A
Shellac (Orange)	A	A ¹	N/A	N/A	A
Silicone	A	A ¹	A ²	N/A	A
Silver Bromide	C	N/A	N/A	N/A	D

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Silver Nitrate	A	A ¹	A ²	N/A	B
Soap Solutions	A	A ¹	A ¹	A	A ¹
Soda Ash (see Sodium Carbonate)	A	B	A	A	A
Sodium Acetate	B	B ¹	A ¹	N/A	B ¹
Sodium Aluminate	B	A ¹	N/A	N/A	A
Sodium Benzoate	N/A	B ¹	A ²	N/A	N/A
Sodium Bicarbonate	A	A	A ²	N/A	A ¹
Sodium Bisulfate	B	A ¹	A ¹	N/A	C
Sodium Bisulfite	C	C ¹	A ¹	A	B ¹
Sodium Borate (Borax)	N/A	A ¹	A ¹	N/A	B
Sodium Bromide	A	B ¹	N/A	N/A	C
Sodium Carbonate	A ¹	B ¹	B ¹	B	A
Sodium Chlorate	A	D	A ¹	A	B ¹
Sodium Chloride	A ¹	A ¹	A ²	A	B
Sodium Chromate	D	C	A ²	N/A	B
Sodium Cyanide	A	A ¹	N/A	N/A	B ¹
Sodium Ferrocyanide	A	N/A	N/A	N/A	B
Sodium Fluoride	N/A	B	N/A	N/A	D
Sodium Hydrosulfite	N/A	A	N/A	N/A	N/A
Sodium Hydroxide (20%)	A	A	A ²	N/A	B ²
Sodium Hydroxide (50%)	A	A	B ¹	B	B ¹
Sodium Hydroxide (80%)	D	C	D	N/A	B ¹
Sodium Hypochlorite (<20%)	D	D	B	B	C
Sodium Hypochlorite (100%)	D	D	N/A	N/A	D
Sodium Hyposulfate	N/A	N/A	N/A	N/A	A
Sodium Metaphosphate	B	A ¹	N/A	N/A	A
Sodium Metasilicate	D	N/A	N/A	N/A	A
Sodium Nitrate	A	A ¹	N/A	N/A	B ¹
Sodium Perborate	B	B ¹	N/A	N/A	B
Sodium Peroxide	D	A ¹	A ²	N/A	A
Sodium Polyphosphate	B	A ¹	N/A	N/A	B
Sodium Silicate	C	A ¹	N/A	N/A	B
Sodium Sulfate	B	A	A ²	A	B ¹
Sodium Sulfide	B	A ¹	D	N/A	D
Sodium Sulfite	N/A	D	N/A	N/A	A
Sodium Tetraborate	B	A	N/A	N/A	A
Sodium Thiosulfate (hypo)	C ¹	B	D	N/A	B
Sorghum	A	A	N/A	N/A	A
Soy Sauce	A	A	N/A	N/A	A
Stannic Chloride	C	B ¹	A ¹	N/A	D
Stannic Fluoborate	C	N/A	N/A	N/A	A
Stannous Chloride	N/A	C ¹	N/A	N/A	A ²
Starch	A	A ¹	N/A	N/A	A
Stearic Acid	A	A ²	A ¹	B	A

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Stoddard Solvent	A	A	A ²	N/A	A
Styrene	A	A ¹	D	N/A	A
Sugar (Liquids)	A	A ¹	N/A	N/A	A
Sulfate (Liquors)	D	B ¹	N/A	N/A	B
Sulfur Chloride	D	A ¹	N/A	N/A	D
Sulfur Dioxide	B	C ¹	A	D	A ¹
Sulfur Dioxide (dry)	B	B ¹	A ¹	D	A
Sulfur Hexafluoride	N/A	B	N/A	N/A	N/A
Sulfur Trioxide	N/A	D	N/A	N/A	C
Sulfur Trioxide (dry)	D	A ¹	N/A	N/A	A
Sulfuric Acid (<10%)	D	C ¹	A ¹	A	B
Sulfuric Acid (10-75%)	D	D	B ¹	C	D
Sulfuric Acid (75-100%)	N/A	D	B	D	D
Sulfuric Acid (cold concentrated)	N/A	D	B	D	B
Sulfuric Acid (hot concentrated)	N/A	D	D	D	C
Sulfurous Acid	C	D	N/A	D	B
Sulfuryl Chloride	A	N/A	N/A	N/A	N/A
Tallow	A	A ¹	N/A	A	A
Tannic Acid	B	C ¹	C	A	A
Tanning Liquors	B	A ¹	N/A	N/A	A ²
Tartaric Acid	B	B ²	A	B	C ²
Tetrachloroethane	A	C ¹	N/A	N/A	A
Tetrachloroethylene	A	A ¹	D	N/A	A
Tetrahydrofuran	A	A	D	D	A
Tin Salts	N/A	N/A	N/A	A	D
Toluene (Toluol)	C ¹	A ¹	D	D	A
Tomato Juice	B	A ¹	A ¹	N/A	A
Trichloroacetic Acid	N/A	C	C	D	C
Trichloroethane	A	C ¹	D	D	B
Trichloroethylene	D	C ¹	A	D	B
Trichloropropane	A	N/A	N/A	N/A	A
Tricresylphosphate	C	A ²	N/A	A	B
Triethylamine	D	A ¹	N/A	A	A
Trisodium Phosphate	A	A	A	B	B
Turpentine	A ²	B	D	D	A
Urea	A	A	B	A	B
Uric Acid	N/A	A	N/A	N/A	B
Urine	A	B	N/A	A	A
Varnish	A	A	N/A	N/A	A
Vegetable Juice	A	A	N/A	N/A	A
Vinegar	B	A	A ²	A	A
Vinyl Acetate	N/A	N/A	N/A	N/A	B
Vinyl Chloride	N/A	A ¹	N/A	N/A	A ¹
Water, Acid, Mine	A1	A	B ²	N/A	B

Chemical Resistance of Plastics



Chemical

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Water, Deionized	N/A	A ¹	N/A	N/A	A ²
Water, Distilled	B	A ¹	A ²	N/A	A
Water, Fresh	A ²	A ¹	A ²	N/A	A
Water, Salt	A	A ²	A ²	N/A	B
Weed Killers	A	A	N/A	N/A	A
Whey	A	N/A	N/A	N/A	A
Whiskey & Wines	A	A ¹	A ¹	N/A	A
White Liquor (Pulp Mill)	D	A ¹	N/A	N/A	A
White Water (Paper Mill)	B	A	N/A	N/A	A
Xylene	A	A ²	D	D	B
Zinc Chloride	C	A	A ²	A	B
Zinc Hydrosulfite	C	A	N/A	N/A	A
Zinc Sulfate	C	A	A ²	A	A

Explanation of Footnotes

Ratings -- Chemical Effect	
A = Excellent.	1. Satisfactory to 72°F (22° C)
B = Good -- Minor Effect, slight corrosion or discoloration.	2. Satisfactory to 120°F (48° C)
C = Fair -- Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.	
D = Severe Effect, not recommended for ANY use.	
N/A = Information Not Available.	