

Ironclad™ LED Vapor Tight High Bay



Chemical Resistance Terms and Conditions

Chemical resistance is a difficult area for any designer due to the fact that the resistance is dependent on so many different factors: concentration, mix of chemicals, humidity, air flow, etc.

The Ironclad™ LED Vapor Tight High Bay has not been tested for chemical resistance to all chemicals. The data listed below is taken from chemical resistance charts supplied by compounder's of Polycarbonate and Acrylic. Shat-R-Shield, Inc. highly recommends that the fixture is tested in the chemical environment applications.

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.	

Source:

http://www.coleparmer.com/ChemicalResistance?preferred_id=2531&creative=13855999479&mkwid=sfVEZmjKr&keyword=cole+parmer&pcrid=13855999479&pdv=c&gclid=CLGMmMmhoboCFe4-Mgod1CAA6A

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
Ammonium Hydroxide	C	A	D	A	A ¹

Chemical Resistance of Plastics

Material				
ACETAL/POM	NYLON	PC	ACRYLIC	316SS

Chemical

V012314

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
Bromine	D	D	C ¹	D	D
Butadiene	A	C ¹	D	N/A	A ¹

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POI	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POW	NYLON	PC	ACRYLIC	316SS
V012314					
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	A ²
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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% HNO ₃)	N/A	N/A	A	N/A	D
Nitrating Acid (>15% H ₂ SO ₄)	D	N/A	N/A	N/A	C
Nitrating Acid (S1% Acid)	N/A	N/A	N/A	N/A	A
Nitrating Acid (S15% H ₂ SO ₄)	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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POW	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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

Chemical Resistance of Plastics

Chemical	Material				
	ACETAL/POM	NYLON	PC	ACRYLIC	316SS
V012314					
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
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