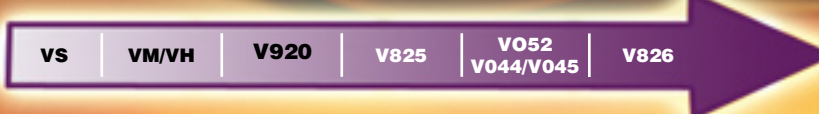


Chemical Resistance of Plexiglas® V-Series Acrylic Resins

Plexiglas® V-series acrylic resins have good resistance to a variety of common cleaners and application environments. The chemical resistance of Plexiglas V-series acrylic resins will vary with the stress level, temperature, reagent, duration of exposure and resin grade. Altuglas International recommends that parts made from Plexiglas resins be tested with all reagents under appropriate conditions for the end-use application.

Increasing Chemical Resistance



Compound Class/Name	Qualitative Ranking*	Compound Class/Name	Qualitative Ranking*	Compound Class/Name	Qualitative Ranking*	Compound Class/Name	Qualitative Ranking*
ACIDS		Detergent Solution	G	Potassium Dichromate, 10%E	E	Cyclohexanone	N
Acetic Acid, Glacial, 100%	N	Epoxy Adhesives	E	Potassium Permanganate	E	Dimethyl Formamide	N
Acetic Acid, 5%	E	Fruit Juice	E	Silver Nitrate	E	Dibutyl Sebacate	F
Chromic Acid, 40%	F	Potassium Sulfite	E	Sodium Chloride, 10%	E	Diethyl Ether	F
Citric Acid, 10%	E	Kerosene	E	Sodium Cyanide	E	Diethyl Sebacate	F
Hydrochloric Acid, 38%	E	Lacquer Thinner	N	Sodium Fluoride	E	Ethylene Dibromide	N
Lactic Acid	E	Milk	E	Sodium Nitrate	E	Ethylene Glycol	E
n-butyric Acid, 100%	N	Mineral Oil	G	Sodium Phosphate	F	*Ethylene Oxide (Dry)	E
Nitric Acid, 70%	F	Motor Oil	E	Sodium Thiosulphate, 40%	E	Ethylene Oxide (Moist)	F
Nitric Acid, 40%	G	Olive Oil	E	SOLVENTS & ORGANIC COMPOUNDS		2-Ethylhexyl Sebacate	E
Nitric Acid, 10%	E	Paint Removers	N	Acetaldehyde, 100%	N	Formaldehyde, Aqueous, 40%	E
Oleic Acid	E	Paint Thinner	N	Acetates	N	Glycerol	E
Oxalic Acid, 100%	E	Polishing Compounds	E	Acetic Anhydride	N	Heptane	E
Stearic Acid	E	Power Steering Fluid	E	Acetone	N	Hexane	E
Sulfuric Acid, 98%	N	Silicone Oil	E	Acetonitrile	N	Isoctane	G
Sulfuric Acid, 30%	E	Soap Solution	G	Acetophenone	N	Metacresol	N
Tartaric Acid, 50%	E	Transformer Oil	G	Alcohol, Allyl	N	Methyl Benzoate	N
Trichloroacetic Acid	N	Transmission Fluid	E	Alcohol, Amyl	N	Methyl Cyclohexanol	N
BASES		Turpentine	N	Alcohol, Benzyl	N	Methyl Ethyl Ketone	N
Ammonium Phosphate	E	Unleaded Gasoline	G	Alcohol, Ethyl, 50%	F	Methyl Naphthalene	N
Ammonium Hydroxide, 28%	E	Wine	E	Alcohol, Ethyl, 100%	N	Methyl Salicylate	N
Sodium Carbonate, 20%	G	INORGANIC COMPOUNDS		Alcohol, Isopropyl, 100%	F	Methylamine	F
Sodium Carbonate, 2%	G	Ammonium Nitrate	E	Alcohol, Methyl, 10%	G	Methylene Dichloride	N
Sodium Hydroxide, 60%	E	Ammonium Phosphate	E	Alcohol, Methyl, 50%	F	n-Octane	F
COMMERCIAL PRODUCTS		Calcium Hypochlorite	E	Alcohol, Methyl, 100%	N	Naphtha	N
Ammonia Based Cleaners	E	Carbon Disulfide	N	Alcohol, n-butyl	N	Nitrobenzene	N
Anti-freeze	E	Chlorine, Aqueous, 2%	E	Aniline	N	Olefinic Carboic Acids	E
Bathroom Cleaners, Most	G	Ferric Chloride, Aqueous, 10%	E	Aviation Fuel (100 Octane)	F	Paraffin, Medicinal	E
Beer	E	Hydrogen Peroxide, 28%	F	Benzaldehyde	N	Petroleum Ether (100-200°C)	F
Brake Fluid	G	Hydrogen Peroxide, 3%	G	Benzene	N	Phenol, Aqueous, 5%	N
Car Wash Detergent	E	Iron Perchloride	F	Benzoic Aldehyde	N	Phthalates	F
Chlorine Based Cleaners	E	Mercury Chloride	F	Butyl Acetyl Ricinoleate	F	Pyridine	N
Coffee	E	Metal Carbonates	E	Butyl Stereate	F	Toluene	N
Cosmoline® Removers	G	Metal Chlorides	E	Butraldehyde	N	Trichloroethane	N
Cottonseed Oil	E	Metal Sulfates	E	Carbon Disulphide	N	Trichloroethylene	N
		Potassium Chlorate	E	Chlorinated Solvents	N	White Spirit	E
		Potassium Cyanide	E	Cyclohexane	N	Xylene	N

* Qualitative rating is based on visual appearance at ambient temperature.

LEGEND:

E=Excellent

G=Good

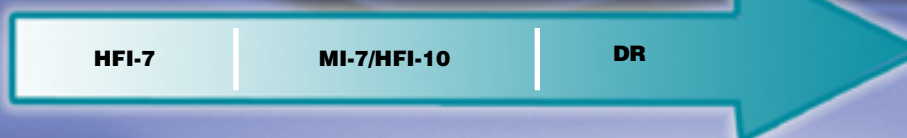
F=Fair

N=Not Recommended

Chemical Resistance of Plexiglas® Impact Resins

Plexiglas® impact-modified acrylic resins have good resistance to a variety of common cleaners and application environments. The chemical resistance of Plexiglas impact-modified acrylic resins will vary with the stress level, temperature, reagent, duration of exposure and resin grade. Altuglas International recommends that parts made from Plexiglas resins be tested with all reagents under appropriate conditions for the end-use application.

Increasing Chemical Resistance



In general the following chemicals may be safely used with parts made from Plexiglas impact-modified acrylic resins under moderate stress at ambient temperature conditions:

Calgon® Bath Oil
Clorox® Bleach
Fantastic® Cleaner
Formula 409® Cleaner

Freon TF Cleaner
Glass Plus® Cleaner
Liquid Comet® Cleaner
Mineral Oil

Mr. Clean® Cleaner
Propylene Glycol
Sodium Hydroxide
Sodium Hypochlorite

Soft Scrub® Cleanser
Spic & Span® Powder
Soap and Water

The following chemicals may be used with caution in low-stress and/or short-duration exposure at ambient conditions:

Ammonia
Brake Fluid
Chlorine (10%)

Ethyl Alcohol (≤40%)
Gasoline
Dow Disinfectant
Bathroom Cleaner & Tile Cleaner

Isopropyl Alcohol (≤50%)
Lestoil® Cleaner
Kerosene

Pinesol® Cleaner
VM&P Naphtha
Lysol® Basin, Tub

The following chemicals may cause crazing, cracking, discoloration, or dissolving of acrylic articles and are generally not recommended:

Acetic Acid
Acetone
Aromatic Solvents
Benzene

Butyl Alcohol
Chlorinated Solvents
Lacquer Thinner

Sulfuric Acid
Toluene
Lysol® Spray
Disinfectant

Turpentine
White Cap® Cleaner
Xylene

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See MSDS for Health & Safety Considerations

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Plexiglas acrylic plastic is a combustible thermoplastic. Observe fire precautions appropriate for comparable forms of wood and paper. For building uses, check code approvals. Impact resistance is a factor of thickness. Avoid exposure to heat or aromatic solvents. Clean with soap and water. Avoid abrasives.