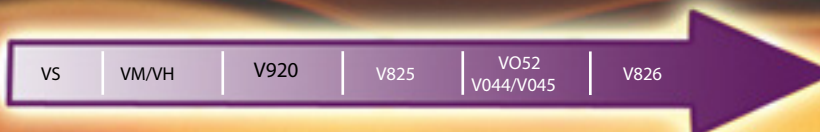


Chemical Resistance of Plexiglas V-Series Acrylic Resins

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

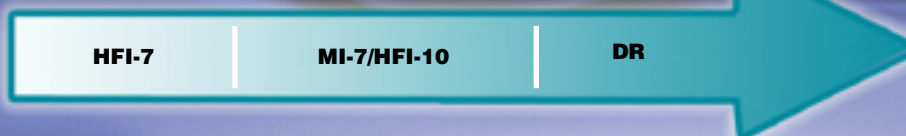
* Qualitative rating is based on visual appearance at ambient temperature.

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	Freon TF Cleaner	Mr. Clean® Cleaner	Soft Scrub® Cleanser
Clorox® Bleach	Glass Plus® Cleaner	Propylene Glycol	Spic & Span® Powder
Fantastic® Cleaner	Liquid Comet® Cleaner	Sodium Hydroxide	Soap and Water
Formula 409® Cleaner	Mineral Oil	Sodium Hypochlorite	

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

Ammonia	Ethyl Alcohol (≤40%)	Isopropyl Alcohol (≤50%)	Pinesol® Cleaner
Brake Fluid	Gasoline	Lestoil® Cleaner	VM&P Naphtha
Chlorine (10%)	Dow Disinfectant	Kerosene	Lysol® Basin, Tub
	Bathroom Cleaner & Tile Cleaner		

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

Acetic Acid	Butyl Alcohol	Sulfuric Acid	Turpentine
Acetone	Chlorinated Solvents	Toluene	White Cap® Cleaner
Aromatic Solvents	Lacquer Thinner	Lysol® Spray	Xylene
Benzene		Disinfectant	

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See MSDS for Health & Safety Considerations

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