

Acrylic Environmental Compatibility Chart

Acrylic reflectors, refractors or lenses should not be used in any location where they will be exposed to environmental contaminants that may diminish their integrity. Many chemicals can be vaporized and attack the acrylic as an airborne contaminant. Exposure of Acrylic (PMMA – Polymethylmethacrylate) materials to certain chemicals

can cause deterioration of the material, which may lead to discoloration, crazing, cracking and mechanical failure. Products with visually noticeable deterioration have diminished integrity and must be replaced immediately. Acrylic products should not be used in any application where they will be exposed directly or indirectly to compounds

identified as “Not Recommended”. This chart identifies the most common chemicals and is not intended to be all-inclusive. Prolonged exposure to compounds identified, as “Not recommended” will void any warranty associated with the product. Consult factory for compatibility of compounds not identified.

Acceptable		Not Recommended	
2-Ethylhexyl Sebacate	Nitrogen Dioxide Gas	Acetandehyde, 100%	Cosmoline Removers
Acetic Acid, 5%	Nitrogen Monoxide Gas	Acetates	Cresol
Ammonia-based Cleaners	Olefric Carbolic Acids	Acetic Acid, Glacial, 100%	Cyclohexane
Ammonia Gas	Oleic Acid	Acetic Anhydride	Cyclohexanone
Ammonium Hydroxide, 28%	Olive Oil	Acetone	Cyclohexene
Ammonium Nitrate	Oxalic Acid, 100%	Acetonitrile	Detergent Solution
Ammonium Phosphate	Oxygen Gas	Acetophenone	Diacetone Alcohol
Aniseed, Bay leaves, Nutmeg	Ozone Gas	Acrylic paints	Diamyl Phthalate
Anti-freeze	Paraffin, Medicinal	Alcohol, Allyl	Dibutyl Sebacate
Beer	Pepper, Cinnamon, Onions	Alcohol, Amyl	Diethyl Ether
Bleaching Powder Paste	Phosphoric Acid, 10% @ 20C	Alcohol, Benzyl	Dimethyl Formamide
Bleaching Powder Solution, 2%	Photographic Baths	Alcohol, Ethyl, 100%	Dioctyl Sebacate
Calcium Hypochlorite	Polishing Compounds	Alcohol, Ethyl, 50%	Dioxane
Car Wash Detergent	Potassium Chlorate	Alcohol, Isopropyl, 100%	Ether
Carbon Dioxide Gas	Potassium Cyanide	Alcohol, Methyl, 10%	Ethyl Acetate
Carbon Monoxide Gas	Potassium Dichromate, 10%	Alcohol, Methyl, 100%	Ethyl Alcohol, Concentrated
Caustic Potash	Potassium Hydroxide @ 20C	Alcohol, Methyl, 50%	Ethyl Bromide
Chlorine Based Cleaners	Potassium Permanganate	Alcohol, n-butyl	Ethyl Butyrate
Chlorine, Aqueous, 2%	Potassium Sulfite	Amyl Acetate	Ethylene Bromide
Citric Acid, 10%	Power Steering Fluid	Aniline	Ethylene Dibromide
Coffee	Propylene	Aviation Fuel (100 Octane)	Ethylene Oxide (Moist)
Cooking Oil	Pure-oil Paints	Bathroom Cleaners	Glass Cleaners
Cottonseed Oil	Silicone Oil	Benzaldehyde	Glycol
Diethylene Glycol	Silver Nitrate	Benzene	Hydrogen Peroxide, 28%
Epoxy Adhesives	Soap Suds	Benzoic Aldehyde	Hydrogen Peroxide, 3%
Ethyl Alcohol, 15%	Soda	Brake Fluid	Iron Perchloride
Ethylene Glycol E	Sodium Chloride, 10%	Bromine Gas	Isoctane
Ethylene Oxide (Dry)	Sodium Cyanide	Butanol	Isopropyl alcohol
Ferric Chloride, Aqueous, 10%	Sodium Fluoride	Butraldehyde	Lacquer Thinner
Formaldehyde, Aqueous, 40%	Sodium Hydroxide, 60%	Butyl Acetyl Ricinoleate	Lactic Acid Butyl Ester
Fruit Juice	Sodium Nitrate	Butyl Stearate	Mercury Chloride
Glycerol	Sodium Thiosulphate, 40%	Carbolic Acid	Meta-Cresol
Heptane	Stearic Acid	Carbon Disulfide	Methanol, 15%
Hexane	Sulfur Dioxide, Dry Gas	Carbon Disulfide	Methanol, Concentrated
Hydrochloric Acid, 38%	Sulfuric Acid, 30%	Cellulose Paints	Methyl Benzoate
Kerosene	Sulfurous Acid, 5%	Chlorinated Hydrocarbons	Methyl Chloride
Lactic Acid	Tararic Acid, 50%	Chlorinated Solvents	Methyl Cycohexanol
Metal Carbonates	Transmission Fluid	Chlorine Gas	Methyl Ethyl Ketone
Metal Chlorides	Tricresyl Phosphate	Chlorophenol	Methyl Naphthalene
Metal Sulfates	Triethyl Amine	Chromic Acid, 40%	Methyl Salicyclate
Methane gas	Vinegar	Cloves	Methylamine
Milk	Water, Mineral Water	Coffee	Methylene Dichloride
Milk, Chocolate	Wax Polish		
Motor Fuel Mixture, without Benene	White Spirit		
Motor Oil	Whitewash		
Natural Gas	Wine		
Nitric Acid, 10%			

Rating is based on visual appearance at ambient temperature 68°F, 50% humidity.

Consult factory where applicable.

All technical information is believed to be accurate as of May 5, 2005.

Indoor H.I.D.

Sheet # AECC

OPAC-400



Sheet#: AECC

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