ACRYLITE®

ACRYLITE®
Chemical Resistance in General Use

KEY: Resistant = Compatible **Limited Resistance= Not Compatible** **Not Resistant= Not Compatible**

Products	R	LR	NR
Paint			
Acrylic paints and lacquers		X	
Aromatic-free hydrocarbons	X		
Nitrocellulose			X
Oil paints, pure	X		
Thinners, general			X
Building Materials and Protective Agents for Buildings			
Bituminous emulsion			X
Cement	X		
Hot bitumen		X	
Mortar	X		
Plaster of Paris	X		
Red lead	X		
Gases and Vapors			
Ammonia	X		
Bromine vapor (dry)		X	
Carbon dioxide	X		
Carbon monoxide	X		
Chloride vapor (dry)		X	
Exhaust gases, containing HCl	X		
Exhaust gases, containing HF	X		
Exhaust gases, containing H_2SO_4	X		
Hydrogen sulphide	X		
Methane	X		
Nitric oxide	X		
Oxygen	X		
Ozone	X		
Sulphur dioxide (dry)	X		
Natural gas (butane)	X		
Disinfectants			
Aqueous hypochlorite solution	X		
Bleaching powder, to 5%	X		
Carbolic acid			X
Hydrogen peroxide, to 40%	X		
Hydrogen peroxide, over 40%		X	
Lugol solution	X		
Mercuric chloride	X		
Surgical spirit			X
Tincture of iodine, 5%			X

Products	R	LR	NR
Chemical Process Baths			
Electroplating baths	X		
Photographic baths	X		
Beverages			
Beer, wine	X		
Chamomile extract	X		
Chocolate	X		
Coffee, tea	X		
Fruit juice, milk	X		
Others			
Nail polish			X
Nail polish remover			X
Peat water	X		
Sea water	X		
Soaps	X		
Spirits, to 30%	X		
Sprays		X	
Vinegar	X		
Water, mineral water	X		
Cleaning Agents			
Acids- see under chemicals			
Alcohol, absolute			X
Alcohol, to 30%	X		
Alkalis- see under chemicals			
Ammonia	X		
Carbon tetrachloride			X
Methylated spirits			X
Paraffin		X	
Perchloroethylene			X
Petrol, pure	X		
Petrol mixture, containing benzene			X
Petroleum ether	X		
Soap solution	X		
Solvent stain removers			X
Trichloroethylene			X
Turpentine		X	
Turpentine substitute		X	

Products	R	LR	NR
Plastics			
Foams	X		
Foams, containing plasticizer			X
Polyamide	X		
Polyethylene	X		
PVC	X		
PVC, plasticized			X
Rubber	X		
Rubber, containing plasticizer			X
Food and Spices			
Aniseed, bay, nutmeg	X		
Cloves			X
Coffee beans, flavored		X	
Coffee beans, unflavored	X		
Honey, pure	X		
Ice cream	X		
Marinades	X		
Meat and fish	X		
Pepper, cinnamon, onions	X		
Salt	X		
Pest Control Agents			
Aqueous solutions of pesticides		X	
Protective (strippable) Coatings			
Grip Mask® *	X		
Sign Strip® ** strippable masking		X	
Miscellaneous			
Urine	X		
Greases, Oils, Waxes			
Animal	X		
Mineral	X		
Silicone oil		X	
Vegetable		X	

*Trademark of Akzo Nobel Coating, Inc., Louisville, KY
**Trademark of Spraylat Corp., Mt. Vernon, NY

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Chemical, Solvents, etc	R	LR	NR	Chemical, Solvents, etc	R	LR	NR	Chemical, Solvents, etc	R	LR	NR
Acetic acid, glacial			X	Ethyl alcohol, to 15%	X			Phosphoric acid, to 10%	X		
Acetic acid, to 25%		X		Ethyl alcohol, 15-30%		X		Phosphorus			X
Acetic acid, 5% (vinegar)	X			Ethyl alcohol, above 30%			X	Phosphorus trichloride			X
Acetone			X	Ethyl bromide			X	Picric acid 1% in water.	X		
Alum	X			Ethyl butyrate			X	Potassium carbonate	X		
Aluminium chloride	X			Ethylene bromide			X	Potassium chloride	X		
Aluminium oxalate	X			Ferric chloride	X			Potassium cyanide	X		
Aluminium sulphate	X			Ferrous chloride	X			Potassium dichromate	X		
Ammonia, aqueous solution	X			Ferrous sulphate	X			Potassium hydroxide	X		
Ammonium sulphate	X			Formic acid , to 2%	X			Potassium nitrate	X		
Amyl acetate			X	Formic acid, to 40%		X		Potassium permanganate	X		
Aniline			X	Glycerol	X			Silicon tetrachloride			X
Arsenic	X			Glycol	X			Silver nitrate	X		
Arsenic acid	X			Heptane	X			Soap Solution	X		
Battery acid	X			Hexane	X			Soda	X		
Benzaldehyde			X	Hydrochloric acid	X			Sodium bisulphite	X		
Benzene			X	Hydrofluoric acid, to 20%	X			Sodium carbonate	X		
Bromine			X	Hydrogen peroxide, to 40%	X			Sodium chlorate	X		
Butanol		X		Hydrogen peroxide, over 40%		X		Sodium chloride	X		
Butyl lactate			X	Iodine	X			Sodium hydroxide	X		
Butyric acid, to 5%	X			Isopropyl alcohol, to 50%		X		Sodium hypochlorite	X		
Calcium chloride	X			Lactic acid, to 80%		X		Sodium sulphate	X		
Calcium hypochlorite	X			Magnesium chloride	X			Sodium sulphide	X		
Carbon disulphide			X	Magnesium sulphate	X			Stearic acid	X		
Carbon tetrachloride			X	Manganese sulphate	X			Sulphur	X		
Chlorinated hydrocarbons			X	Mercury	X			Sulphur dioxide, liquid			X
Chlorine, liquid			X	Methanol, absolute			X	Sulphuric acid, to 30%	X		
Chlorine water		X		Methanol, to 15%		X		Sulphurous acid conc.		X	
Chloroethyl acetate			X	Methyl ethyl ketone			X	Sulphurous acid, to 5%	X		
Chlorophenol			X	Methylated spirits			X	Sulphuryl chloride	X		
Chromic acid		X		Milk of lime	X			Tartaric acid, to 50%	X		
Citric acid, to 20%	X			Monobromonaphthalene	X			Thionyl chloride			X
Copper sulphate	X			Motor fuel, benzene-free	X			Toluene			X
Cresol			X	Motor fuel, with benzene			X	Triethylamine	X		
Cyclohexane	X			Nickel sulphate	X			Trichloroacetic acid			X
Diacetone alcohol			X	Nitric acid, to 20%	X			Tricresyl phosphate	X		
Diamyl phthalate		X		Nitric acid, 20-70%		X		Turpentine		X	
Dibutyl phthalate			X	Nitric acid, over 70%			X	Turpentine substitute		X	
Diethylene glycol	X			Oxalic acid	X			Urea, to 20%	X		
Dioxane			X	Paraffin		X		Xylene			X
Ether			X	Perchloroethylene			X	Zinc sulphate, aqueous		X	
Ethyl acetate			X	Petroleum ether	X			Zinc sulphate, solid	X		
				Phenols			X				

Testing is based on ASTM D 1308-98, Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes. Chemicals were tested on stress-free flat panels at room temperature.

ACRYLITE® is Not Resistant (NR) if the chemical caused any objectionable alteration in the surface, such as discoloration, change in gloss, blistering, softening, swelling, loss of adhesion, or special phenomena.

ACRYLITE® is Resistant (R) if no objectionable alteration occurred.

ACRYLITE® has Limited-Resistance (LR) if there was a temporary effect that could be removed upon further cleaning of the specimen.

The information on this chart can be used for ACRYLITE® extruded and ACRYLITE® cast sheet. ACRYLITE® extruded sheet is dissolved faster by solvents than ACRYLITE® cast sheet. All information is based on 72°F (23°C) test temperature and stress free material. The practical performance depends on usage temperatures and actual stresses. If you are not sure about your application, please call Roehm America LLC's Technical Service Department.

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Röhm GmbH and its affiliates are a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

Fire Precautions
ACRYLITE® sheet is a combustible thermoplastic. Precautions should be taken to protect this material from flames and high heat sources. ACRYLITE® sheet usually burns rapidly to completion if not extinguished. The products of combustion, if sufficient air is present, are carbon dioxide and water. However, in many fires sufficient air will not be available and toxic carbon monoxide will be formed, as it will when other common combustible materials are burned. We urge good judgement in the use of this versatile material and recommend that building codes be followed carefully to assure it is used properly.

Compatibility
Like other plastic materials, ACRYLITE® sheet is subject to crazing, cracking or discoloration if brought into contact with incompatible materials. These materials may include cleaners, polishes, adhesives, sealants, gasketing or packaging materials, cutting emulsions, etc. See the Tech Briefs in this series for more information, or contact your ACRYLITE® sheet Distributor for information on a specific product.