Assmann Product Ratings and Temperature Performance

This information is based on our experience, research, and support from other published chemical resistance charts. It is believed to be reliable; it is, however, intended to be used only as a guide. Assmann Corporation of America assumes no responsibility in connection with its use.

Additional assistance should be requested if there are doubts about compatibility, sustainability, warranty, allowable transportability, or storage in Assmann products.

SERVICE TEMPERATURE LIMITATIONS

Cross-linked polyethylene: -40° F to +150° F

Linear polyethylene: -20° F to +120° F

Note: Constant service temperatures above 100° F greatly reduce useful tank life, please consult factory.

Ratings	Chemical Attack		
A	No Effect	Excellent	At ambient temperature
B	Minor Effect	Good	At ambient temperature
C	Moderate Effect	Fair	Additional research required
D	Severe Effect	NOT RECOMMENDED	
—	No Data		

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Acetic Acid* 1-10%	A	A	B	A	B	A	C	A
Acetic Acid* 10-60%	A	A	C	A	B	A	C	A
Acetic Acid* 80-100%	A	A	C	A	B	A	C	B
Aluminum Chloride-dilute	A	A	A	C	A	A	A	A
Aluminum Chloride-conc.	A	-	A	C	A	A	A	A
Aluminum Flouride-conc.	A	A	A	C	A	B	-	A
Aluminum Sulfate-conc	A	A	A	A*	A	A	A	A
Alums (all types) conc* **	A	A	A	A	A	A	A	A
Ammonia 100% Dry Gas	A	A	A	A	A	-	-	B
Ammonium Carbonate	A	A	A	A	A	B	B	C
Ammonium Chloride-sat'd	A	A	A	A	-	A	B	A
Ammonium Flouride 20%	A	-	A	-	-	-	-	-
Ammonium Hydroxide 0,888 sq	A	A	A	A	A	A	B	A
Ammonium Metaphosphate sat'd	A	A	A	-	-	-	-	-
Ammonium Nitrate sat'd	A	A	A	A	A	A	B	A
Ammonium Persulfate sat'd	A	A	A	A	-	A	A	B

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Ammonium Sulfate sat'd	A	A	A	A	A	B	-	A
Ammonium Sulfide sat'd	A	-	-	A	A	B	D	A
Ammonium Thiocyanate sat'd	A	-	-	-	-	-	-	-
Amyl Alcohol* 100%	A	A	A	A	-	A	B	A
Aniline 100%	A	B	A	A	C	B	D	A
Antimony Chloride	A	-	-	-	-	-	-	A
Barium Carbonate sat'd	A	A	A	A	A	-	-	A
Barium Chloride	A	A	A	A	A	A	B	-
Barium Hydroxide	A	A	A	A	B	B	A	A
Barium Sulfate sat'd	A	A	A	A	-	-	A	A
Barium Sulfide sat'd	A	A	A	A	-	-	A	A
Benzene Sulfonic Acid*	A	D	-	-	-	-	-	A
Borax Cold sat'd	A	A	A	A	A	A	A	A
Boric Acid Dilute	A	A	A	A	A	A	A	A
Boric Acid Conc	A	A	A	A	-	A	A	A
Bromic Acid 10%	A	D	-	-	-	-	-	-

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Calcium Bisulfide	A	A	A	B	A	A	A	-
Calcium Carbonate sat'd	A	A	A	A	A	A	A	A
Calcium Chlorate sat'd	A	A	A	-	A	-	-	A
Calcium Chloride sat'd	A	A	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A	A	A
Calcium Hypochlorite Bleach	A	A	A	B	A	A	A	A
Calcium Nitrate 50%	A	-	A	-	-	-	-	A
Calcium Sulfate	A	A	A	A	-	B	A	A
Carbon Dioxide 100% Dry	A	A	A	A	A	-	B	A
Carbon Dioxide 100% Wet	A	A	A	A	A	-	B	A
Carbon Dioxide Cold sat'd	A	-	A	A	A	-	B	A
Carbonic Acid	A	-	A	B	-	A	A	A
Castor Oil* Conc	A	-	A	-	-	A	A	A
Chrome Alum sat'd	A	-	B	-	-	-	A	B
Chromic Acid 20%	A	A	B	A	A	A	A	D
Cider*	A	-	A	A	-	-	A	-
Citric Acid* sat'd	A	B	A	A	A	A	A	A
Coconut Oil Alcohols*	A	-	-	A	-	-	A	D
Cola Concentrates*	A	-	-	A	-	-	-	-
Copper Chloride sat'd	A	A	A	D	A	-	A	A
Copper Cyanide sat'd	A	A	A	A	-	A	A	A
Copper Flouride 2%	A	-	A	D	-	-	-	-
Copper Nitrate sat'd	A	A	A	A	A	A	A	-
Copper Sulfate Dilute 5%	A	A	A	A	A	-	A	A
Copper Sulfate sat'd	A	-	-	A	A	-	-	A
Cottonseed Oil*	A	-	A	A	-	-	A	B
Cuprous Chloride sat'd	A	-	-	-	-	-	A	A
Cychohexanol*	A	-	-	A	-	-	A	D
Detergents Synthetic*	A	A	A	A	-	-	A	A
Developers, Photographic	A	-	A	A	A	-	A	-
Dextrin sat'd	A	-	-	-	-	-	-	-
Dextros sat'd	A	A	A	-	-	-	-	-
Dibutylphthalate	A	-	-	-	-	-	B	C
Disodium Phosphate	A	A	D	D	D	A	A	-
Ethylene Glycol*	A	D	A	A	-	-	A	A
Ferric Chloride sat'd	A	A	A	D	D	-	A	A
Ferric Nitrate sat'd	A	A	A	A	-	-	A	A
Ferric Sulfate	A	A	A	A	A	A	A	A
Ferrous Chloride sat'd	A	A	A	D	A	-	A	A
Ferrous Sulphate	A	A	A	A	A	B	A	A
Flouboric Acid	A	-	A	B	D	A	A	D
Flousilicic Acid 32%	A	-	A	C	-	B	A	A

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Flousilicic Acid conc.	A	-	A	D	-	B	A	A
Formaldehyde* 40%	A	A	A	A	A	A	A	A
Formic Acid* 0-20%	A	A	D	A	-	A	B	A
Formic Acid* 20-50%	A	A	D	A	C	A	B	A
Formic Acid* 100%	A	A	D	A	-	A	B	A
Fructose sat'd	A	A	A	A	-	-	-	-
Fruit pulp	A	A	A	A	-	-	A	-
Gallic Acid sat'd	A	-	-	-	-	-	-	A
Glucose	A	A	A	A	-	-	A	A
Glycerine*	A	A	A	A	A	A	A	A
Glycol*	A	-	A	-	-	-	-	A
Glycolic Acid* 30%	A	A	A	-	-	A	A	-
Grape Sugar sat'd ag	A	A	A	A	-	-	-	-
Hydrobromic Acid 50%	A	B	A	D	A	A	A	-
Hydrocyanic Acid sat'd	A	A	A	-	C	A	A	-
Hydrochloric Acid 10%	A	A	A	D	C	A	A	A
Hydrochloric Acid 30%	A	A	A	D	C	A	A	A
Hydrochloric Acid 35%	A	A	A	D	C	A	A	D
Hydrochloric Acid conc.	A	A	A	D	C	A	A	D
Hydroflouric Acid 40%	A	A	D	D	D	B	A	D
Hydroflouric Acid 60%	A	D	D	D	D	B	A	D
Hydroflouric Acid 75%	A	D	D	D	D	B	A	D
Hydroflousilicic Acid	A	B	B	B	D	A	-	A
Hydrogen Bromide 10%	A	-	D	-	-	-	-	-
Hydrogen Peroxide 30%	A	A	A	A	B	A	A	D
Hydrogen Peroxide 90%	A	A	A	D	B	A	A	D
Hydrogen Phosphide 100%	A	-	-	-	-	A	-	-
Hydroquinone	A	-	-	-	-	-	-	C
Hydrogen Sulfide	A	A	A	A	A	-	D	B
Inks*	A	-	-	A	-	-	A	-
Iodine (alc. Sol) conc.	A	D	D	D	A	B	A	B
Lactic Acid* 10%	A	A	A	-	A	-	A	A
Lactic Acid* 90%	A	A	A	A	A	-	A	B
Latex*	A	A	A	A	-	-	A	A
Lead Acetate sat'd	A	A	A	B	A	-	D	A
Lube Oil	A	A	A	A	-	-	A	C
Magnesium Carbonate sat'd	A	A	A	A	-	B	-	-
Magnesium Chloride sat'd	A	A	A	A	A	A	A	A
Magnesium Hydroxide sat'd	A	A	A	A	A	-	A	A
Magnesium Nitrate sat'd	A	A	A	A	-	-	-	A
Magnesium Sulphate sat'd	A	A	A	A	A	B	A	A
Mercuric Chloride sat'd	A	-	A	D	A	B	A	A

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Mercurous Nitrate sat'd	A	-	A	-	-	-	-	A
Milk	A	A	A	A	A	-	A	A
Mineral Oils	A	-	A	A	-	-	-	D
Molasses	A	A	A	A	-	-	A	A
Nickel Chloride sat'd	A	A	A	A	A	-	A	A
Nickel Nitrate conc.	A	A	A	A	-	-	-	-
Nickel Sulfate sat'd	A	A	A	A	-	-	A	A
Nitric Acid* 0-30%	A	A	A	A	A	A	A	A
Oils & Fats	A	A	-	A	-	-	A	B
Oleic Acid conc.	A	A	A	A	-	-	B	D
Orange Extract*	A	-	-	A	-	-	-	-
Oxalic Acid* dilute	A	A	A	-	C	B	A	-
Oxalic Acid* sat'd	A	A	A	A	C	-	A	A
Perchloric Acid 10%	A	-	-	-	-	-	-	A
Phosphoric Acid up to 30%	A	A	A	A	A	A	A	A
Phosphoric Acid over 30%	A	A	A	B	B	A	A	A
Phosphoric Acid over 90%	A	A	A	B	B	A	A	A
Phosphoric (Yellow) 100%	A	-	-	-	-	-	-	-
Phosphorus Pentoxide 100%	A	-	-	-	-	-	-	-
Photographic Solutions	A	A	A	A	A	A	-	-
Pickling Baths								
Sulfuric Acid*	A	-	-	B	-	-	A	D
Hydrochloric Acid*	A	-	A	D	A	-	A	D
Sulfuric-Nitric*	A	-	-	B	-	-	A	D
Plating Solutions								
Brass*	A	A	A	A	-	A	-	B
Cadmium*	A	A	A	-	-	A	-	B
Copper*	A	A	A	-	-	-	A	B
Gold*	A	A	A	A	-	-	A	B
Indium*	A	A	A	A	-	-	A	B
Lead*	A	A	A	-	-	-	A	B
Nickel*	A	A	A	-	-	-	A	B
Rhodium*	A	-	-	-	-	-	-	B
Silver*	A	A	A	A	-	-	A	B
Tin*	A	A	A	A	-	-	A	B
Zinc*	A	A	A	A	A	-	A	B
Potassium Bicarbonate sat'd	A	-	A	B	-	-	A	A
Potassium Borate 1%	A	-	-	-	-	-	-	-
Potassium Bromate 10%	A	-	A	A	-	-	-	-
Potassium Bromide sat'd	A	A	A	A	A	A	-	A
Potassium Carbonate	A	A	A	A	-	B	A	A
Potassium Chlorate sat'd	A	A	A	A	-	B	A	A

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Potassium Chloride sat'd	A	A	A	A	A	B	A	A
Potassium Chromate 40%	A	A	A	B	A	A	A	-
Potassium Dichromate 40%	A	A	A	A	A	B	A	A
Potassium Hydroxide 20%	A	A	A	A	C	B	D	A
Potassium Hydroxide conc.	A	A	A	A	C	B	D	A
Potassium Nitrate sat'd	A	-	A	A	-	B	-	A
Potassium Perborate sat'd	A	-	-	-	-	-	A	-
Potassium Perchlorate 10%	A	-	-	-	-	-	-	-
Potassium Permangante	A	A	D	A	A	A	A	A
Potassium Sulfate conc.	A	A	A	B	A	B	A	A
Potassium Sulfide conc.	A	A	-	-	A	-	A	B
Potassium Sulfite conc.	A	A	A	-	A	-	A	D
Potassium Persulphate sat'd	A	-	A	-	-	-	-	-
Propylene Glycol*	A	-	-	A	-	-	A	A
Rayon Coagulations Bath*	A	-	-	-	-	-	-	-
Sea Water	A	A	A	A	A	-	A	A
Selenic Acid	A	-	-	-	-	-	-	-
Shortening*	A	A	-	A	-	-	-	-
Silicic Acid	A	-	-	-	-	-	-	-
Silver Nitrate Sol.	A	A	A	A	-	-	A	A
Soap Solution* any conc	A	A	D	A	-	-	A	A
Sodium Acetate sat'd	A	A	A	A	A	-	A	A
Sodium Benzoate 35%	A	-	-	-	-	-	-	-
Sodium Bicarbonate sat'd	A	A	A	A	-	B	A	A
Sodium Bisulfate sat'd	A	A	A	A	A	A	A	A
Sodium Bisulfite sat'd	A	A	A	A	A	B	A	A
Sodium Borate	A	-	-	-	-	-	A	A
Sodium Bromide Dilute Sol.	A	-	-	-	-	-	A	-
Sodium Carbonate conc.	A	A	A	A	A	-	A	-
Sodium Carbonate	A	A	A	A	A	-	A	A
Sodium Chlorate sat'd	A	A	A	A	A	A	A	-
Sodium Chloride sat'd	A	A	A	A	A	A	A	-
Sodium Dichromate sat'd	A	-	-	-	-	-	A	-
Sodium Hydroxide conc.	A	A	A	A	A	B	B	A
Sodium Hypochlorite to 17%*	A	A	A	D	A	B	A	B
Sodium Nitrate	A	A	A	A	A	-	A	A
Sodium Sulfate	A	A	A	A	A	B	A	A
Sodium Sulfide 25%	A	A	A	A	A	-	A	A
Sodium Sulfide sat's sol	A	A	A	A	A	-	A	A
Sodium Sulfite sat'd	A	A	A	A	A	-	A	A
Stannic Chloride sat'd	A	-	A	A	A	-	A	A
Stannous Chloride sat'd sol	A	-	A	A	A	-	A	A

Chemical Name	Polyethylene	Polypropylene	P.V.C.	316 Stainless Steel	Titanium	Hastelloy C-276	Viton	E.P.D.M
Starch Solution* sat'd	A	-	A	-	-	-	A	A
Stearic Acid* 100%	A	D	-	-	A	-	A	C
Sulfuric Acid 0-50%	A	A	A	B	A	A	A	C
Sulfuric Acid 70%	A	A	A	B	D	B	A	D
Sulfuric Acid 80%	A	D	D	-	-	A	A	D
Sulfurous Acid	A	A	A	B	A	B	A	C
Tallow	A	-	-	A	-	-	A	A
Tannic Acid* 10%	A	A	A	A	A	-	A	A
Tanning Extracts* Comm	A	-	A	A	-	A	-	-
Tartaric Acid sat'd	A	A	A	A	A	B	A	A
Transformer Oil	A	A	A	A	-	-	A	D
Trisodium Phosphate sat'd	A	-	-	-	-	-	-	-
Urea* Up to 30%	A	-	A	A	-	-	A	-
Urine	A	A	A	A	-	-	A	-
Vinegar Comm.	A	A	A	A	-	-	A	A
Vanilla Extract*	A	-	-	A	-	-	-	-
Water-All Types	A	A	A	A	A	A	A	A
Wetting Agents*	A	-	-	A	-	-	-	-
Whiskey*	A	A	A	A	-	-	A	A
Wines	A	A	A	A	-	-	A	A
Yeast	A	A	-	A	-	-	-	-
Zinc Chloride sat'd	A	A	-	A	-	-	-	-
Zinc Sulfate sat'd	A	A	A	A	A	-	A	A
*** Stress Cracking Agent**	** No Free Sulfuric Acid							

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