



Chemical Compatibility Guide For Ultra-Containment Wall liners (30 Mil Textured)

This listing was prepared to provide guidance to the chemical compatibility of the liner used with UltraTech's Containment Walls which are manufactured and constructed of polyethylene.

Polyethylene is susceptible to attack by some chemicals which may cause stress cracking, swelling, oxidation or may permeate the polyethylene. These reactions may reduce the physical properties of polyethylene. When considering a containment wall for use in secondary containment

A = Fluid has little to no effect.

B = Fluid has minor to moderate effect.

C = Do NOT store these chemicals in Ultra-Containment Walls using this liner.

User testing may prove some of these chemicals are suitable for secondary containment applications with an exposure time of one week or less.

applications, it is important to note that most secondary containment products are designed to hold leaked chemicals for only hours, a day, at most a week.

These containment walls, and liners, would then be cleaned of any chemical. In these short term applications, a greater variety of chemicals may be used with the polyethylene since the exposure time of the chemical to the polyethylene is limited.

Material	Rating (60°F/20°C)	Rating (148°F/60°C)
Acetic Acid (50%)	A	B
Acetic Acid (10%)	A	A
Acetic Acid (96% Gla.)	A	B
Acetic Anhydride (100%)	A	B
Acetone (100%)	B	B
Adipic Acid (Sat. Sol.)	A	A
Allyl Alcohol (100%)	A	--
Aluminum Chloride (Sat. Sol.)	A	A
Aluminum Flouride (Sat. Sol.)	A	A
Aluminum Salts	A	A
Aluminum Sulfate (Sat. Sol.)	A	A
Alums (Sol.)	A	A
Ammonia, Aqueus (Dil. Sol.)	A	A
Ammonia, Dry Gas (100%)	A	A
Ammonia, Liquid (100%)	A	A
Ammonium Chloride (Sat. Sol.)	A	A
Ammonium Fluoride (Sol.)	A	A
Ammonium Nitrate (Sat. Sol.)	A	A
Ammonium Sulfate (Sat. Sol.)	A	A
Ammonium Sulfide (Sol.)	A	A
Amyl Acetate (100%)	B	C
Amyl Alcohol (100%)	A	B
Aniline (100%)	A	B
Aniline Chlorohydrate	B	C
Aniline Dyes	C	--

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Material	Rating (60°F/20°C)	Rating (148°F/60°C)
Aniline Hydrochloride, Aq. (All)	B	C
Antimony Trichloride (90%)	A	A
Aqua Regia (HCl-HNO ₃ 3/1)	C	C
Arsenic Acid (Sat. Sol.)	A	A
Barium Carbonate (Sat. Sol.)	A	A
Barium Chloride (Sat. Sol.)	A	A
Barium Hydroxide (Sat. Sol.)	A	A
Barium Sulfate (Sat. Sol.)	A	A
Barium Sulfide (Sat. Sol.)	A	A
Benzaldehyde (100%)	A	B
Benzene (100%)	B	C
Benzene Sulfonic Acid (10%)	B	C
Borax (Sodium Tetraborate) (Sat. Sol.)	A	A
Boric Acid (Aqueous) (Sat. Sol.)	A	A
Bromine (Dry Gas) (100%)	C	C
Butane, Gas (100%)	A	A
Butanol (100%)	A	A
Butyric Acid (Aqueous) (100%)	A	B
Calcium Carbonate (Sat. Sol.)	A	A
Calcium Chlorate (Sat. Sol.)	A	A
Calcium Chloride (Sat. Sol.)	A	A
Calcium Hydroxide (Sat. Sol.)	A	A
Calcium Nitrate (Sat. Sol.)	A	A
Calcium Sulfate (Sat. Sol.)	A	A
Calcium Sulfide (Dil. Sol.)	B	B
Carbon Dioxide (Wet or DR) (100%)	A	A
Carbon Disulfide (100%)	C	C
Carbon Monoxide (100%)	A	A
Carbon Tetrachloride (100%)	B	C
Chloric Acid (20%)	A	C
Chlorine, Gaseous, Dry (Sat. Sol.)	C	C
Chlorine, Gaseous, Moist	C	C
Chlorine, Liquid	C	C
Chlorine, Water	B	C
Chloroform (Pure)	C	C
Chromic Acid (20%)	A	B
Citric Acid, Aqueous (Sat. Sol.)	A	A
Copper Chloride, Aqueous (Sat. Sol.)	A	A
Copper Nitrate, Aqueous (Sat. Sol.)	A	A
Copper Sulfate, Aqueous (Sat. Sol.)	A	A
Corn Oil	A	A

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Material	Rating (60°F/20°C)	Rating (148°F/60°C)
Creosote	A	A
Cresylic Acid (Sat. Sol.)	B	--
Cyclohexanol (100%)	B	C
Cyclohexanone (100%)	B	C
Decahydronaphthalene (100%)	A	B
Dextrin (Sol.)	A	A
Diesel Fuel	A	B
Diethyl Ether (100%)	B	--
Dioxane (100%)	A	A
Ethanediol (100%)	A	A
Ethanol (40%)	A	B
Ethyl Acetate (100%)	A	C
Ethylene Trichloride (100%)	C	C
Ferric Chloride (Sat. Sol.)	A	A
Ferric Nitrate (Sol.)	A	A
Ferric Sulfate (Sat. Sol.)	A	A
Ferrous Chloride (Sat. Sol.)	A	A
Ferrous Sulfate (Sat. Sol.)	A	A
Fluorine, Gaseous (100%)	C	C
Fluorosilic Acid (40%)	A	A
Formaldehyde (40%)	A	A
Formic Acid, Aqueous (10-50%)	A	A
Formic Acid, Aqueous (85-100%)	A	A
Furfuryl Alcohol (100%)	A	B
Gasoline	B	C
Glacial Acetic Acid (96%)	A	B
Glucose (Sat. Sol.)	A	A
Glycerine (100%)	A	A
Glycol (Sol.)	A	A
Heptane (100%)	A	C
Hexane	A	B
Hydrobromic Acid (100%)	A	A
Hydrogen (100%)	A	A
Hydrogen Peroxide, Aqueous (30%)	A	B
Hydrogen Peroxide, Aqueous (90%)	A	C
Isopropanol (Pure)	A	C
Jam, Jellies	A	A
Jet Fuels, JP-4 / JP-5	B	C
Kerosene	B	C
Ketones	B	C

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Material	Rating (60°F/20°C)	Rating (148°F/60°C)
Lactic Acid (100%)	A	A
Lead Acetate (Sat. Sol.)	A	A
Magnesium Carbonate (Sat. Sol.)	A	A
Magnesium Chloride (Sat. Sol.)	A	A
Magnesium Hydroxide (Sat. Sol.)	A	A
Magnesium Nitrate (Sat. Sol.)	A	A
Maleic Acid (Sat. Sol.)	A	A
Mercuric Chloride (Sat. Sol.)	A	A
Mercuric Cyanide (Sat. Sol.)	A	A
Mercurous Nitrate (Sol.)	A	A
Mercury (100%)	A	A
Methanol (100%)	B	C
Methylene Chloride (100%)	B	C
Milk	A	A
Mineral Oil	B	C
Nickel Chloride (Sat. Sol.)	A	A
Nickel Nitrate (Sat. Sol.)	A	A
Nicotinic Acid (Dil. Sol.)	A	A
Nitric Acid (60%)	C	C
Nitric Acid (>30-50%)	B	C
Nitric Acid (0-30%)	A	A
Nitric Acid (75%)	C	C
Oil and Fats	A	B
Oils and Grease	A	B
Oils, Vegetables	B	C
Oleic Acid (100%)	B	C
Orthophosphoric Acid (85%)	A	B
Orthophosphoric Acid (50%)	A	A
Oxalic Acid, Aqueous (Sat. Sol.)	A	B
Oxygen, Gas (100%)	A	B
Ozone, Gas (100%)	B	C
Petroleum (Crude Oil)	B	C
Phenol (Sol.)	A	A
Phosphorous Trichloride (100%)	A	B
Picric Acid, Aqueous (Sat. Sol.)	A	C
Potassium Bicarbonate (Sat. Sol.)	A	A
Potassium Bisulfide (Sol.)	A	A
Potassium Bromate (Sat. Sol.)	A	A
Potassium Bromide (Sat. Sol.)	A	A
Potassium Carbonate, Aqueous (Sat. Sol.)	A	A

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Material	Rating (60°F/20°C)	Rating (148°F/60°C)
Potassium Chlorate, Aqueous (Sat. Sol.)	A	A
Potassium Chromate (Sat. Sol.)	A	A
Potassium Cyanide, Aqueous (Sat. Sol.)	A	A
Potassium Dichromate, Aqueous (Sat. Sol.)	A	A
Potassium Ferricyanide, Aqueous (Sat. Sol.)	A	A
Potassium Ferrocyanide, Aqueous (Sat. Sol.)	A	A
Potassium Fluoride, Aqueous (Sat. Sol.)	A	A
Potassium Hydrogen Sulfide (Sol.)	A	A
Potassium Hydroxide, Aqueous (Sat. Sol.)	A	A
Potassium Hypochlorite (Sol.)	A	B
Potassium Nitrate (Sat. Sol.)	A	A
Potassium Orthophosphate (Sat. Sol.)	A	A
Potassium Perchlorate (Sat. Sol.)	A	A
Potassium Permanganate (20%)	A	A
Potassium Persulfate, Aqueous (Sat. Sol.)	A	A
Potassium Sulfate (Sat. Sol.)	A	A
Potassium Sulfide (Sol.)	A	A
Propionic Acid (100%)	A	B
Propionic Acid (50%)	A	B
Pyridine (100%)	A	B
Quinol (Hydroquinone) (Sat. Sol.)	A	A
Salicylic Acid (Sat. Sol.)	A	A
Sea Water	A	A
Silver Acetate (Sat. Sol.)	A	A
Silver Cyanide (Sat. Sol.)	A	A
Silver Nitrate (Sat. Sol.)	A	A
Sodium Benzoate (Sat. Sol.)	A	A
Sodium Bicarbonate (Sat. Sol.)	A	A
Sodium Biphosphate (Sat. Sol.)	A	A
Sodium Bisulfite (Sat. Sol.)	A	A
Sodium Bromide (Sat. Sol.)	A	A
Sodium Carbonate, Aqueous (All)	A	A
Sodium Chlorate (Sat. Sol.)	A	A
Sodium Chloride (Sat. Sol.)	A	A
Sodium Cyanide (Sat. Sol.)	A	A
Sodium Ferricyanide (Sat. Sol.)	A	A
Sodium Ferrocyanide (Sat. Sol.)	A	A
Sodium Fluoride (Sat. Sol.)	A	A
Sodium Hydroxide (Sol.)	A	A
Sodium Hypochlorite (15%)	A	A

Material	Rating (60°F/20°C)	Rating (148°F/60°C)
Sodium Nitrate, Aqueous (Sat. Sol.)	A	A
Sodium Nitrite (Sat. Sol.)	A	A
Sodium Orthophosphate (Sat. Sol.)	A	A
Sodium Sulfate (Sat. Sol.)	A	A
Sodium Sulfide (Sat. Sol.)	A	A
Sulphur Dioxide, Dry (100%)	A	A
Sulphur Trioxide (100%)	C	C
Sulphuric Acid (Fuming)	C	C
Sulphuric Acid (>90%)	B	C
Sulphuric Acid (50%)	A	A
Sulphuric Acid (50-90%)	A	B
Tannic Acid (Sol.)	A	A
Tartaric Acid (Sat. Sol.)	A	A
Thionyl Chloride (100%)	B	C
Toluene (100%)	B	C
Transformer Oil	B	C
Triethylamine (Sol.)	A	B
Urea (Sol.)	A	A
Urine	A	A
Vaseline	A	B
Vegetable Oils	A	A
Vinegar	A	A
Water	A	A
Wine	A	A
Xylene (100%)	B	C
Yeast (Sol.)	A	A
Zinc (II) Chloride (Sat. Sol.)	A	A
Zinc (IV) Chloride (Sat. Sol.)	A	A
Zinc Carbonate (Sat. Sol.)	A	A
Zinc Chloride (Sat. Sol.)	A	A
Zinc Oxide (Sat. Sol.)	A	A
Zinc Sulfate (Sat. Sol.)	A	A