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AUSSIE Mate 580-AL
Aluminum Liner Chemical Compatibility Chart

Aussie Mate 580-AL Resists standard chemicals found in natural ground water conditions and resists numerous contaminants — oil, jet fuel, kerosene, perchlorates, animal fats, salt and a variety of organic and inorganic compounds including acids and bases. **Aussie Mate 580-AL** is a manufactured 3-layer system. Each layer is specifically designed to deliver industry leading capabilities and when combined create a strong barrier to water, vapor, methane, and a variety of other VOC's. Note the three layers below that have been combined at our factories to deliver a single, easy to install system.

1. Base sheet made of high-quality polymer. Acts as both a release liner when installed on vertical walls and a chemical resistant protection layer for the Bitumen when installed horizontally under slabs on grade.
2. 60 mils or 80 mils of high quality rubberized-bitumen. This layer bonds aggressively to vertical walls as well as seals/bonds to the leading edges of the membrane, perimeter footings, penetrations, etc.
3. The Aluminum outer skin provides near zero permeance of vapor, methane, radon and a variety of other VOC's. The Aluminum skin also provides UV protection and can be left exposed in the field for up to 6 months.

Chemical resistance and tolerance is a function of three main criteria:

- Concentration
- Duration
- Temperature

How concentrated a particular contaminate is can affect how any product will react to it. In most instances, contaminants will be diluted by groundwater or disbursed in the soil; however, it is still important to know the concentration to make an informed decision.

Duration refers to how long a particular contaminant, at a particular concentration, will remain in contact with the membrane. Again, concentration is a factor here, but knowing how long is especially important with high concentrations of contaminants.

Temperature is another key variable in how severe of an affect a contaminant will have on a product. At normal ground water temperatures, this is not a key factor, but again knowledge of all the conditions is crucial to making the right decision.

The chemical resistance data in Table 1 is a result of laboratory tests and is intended to serve only as a guide. No performance warranty is intended or implied. As stated, the degree of chemical attack on any material is governed by the conditions under which it is exposed. Exposure time, temperature and the size of the exposure area usually varies considerably in application therefore; this table is given and accepted at the user's risk. Confirmation and validity and suitability in specific cases should be obtained. **Aussie Mate 580-AL** has not been tested against every contaminant; Table 1 should be used for general screening purposes only and should not be used to replace chemical-specific testing where firm compatibility information is required. The effects of combinations of these chemicals have not been evaluated. Complex chemical solutions should be evaluated on a case-by-case basis.

For additional or specific questions regarding Chemical Compatibility of the Aussie Mate 580-AL, please consult your local AVM Sales Representative or the Technical Services department at: **888.414.1041** or **818.888.0050**.

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Aluminum Chemical Compatibility Chart for Aussie Mate 580-AL

Chemical	72°F (22°C)
Acetaldehyde	B
Acetamide	A
Acetate Solvent	A
Acetic Acid	B
Acetic Acid 20%	B
Acetic Acid 80%	B
Acetic Acid, Glacial	B
Acetic Anhydride	A
Acetone	A
Acetyl Bromide	N/A
Acetyl Chloride (dry)	D
Acetylene	A
Acrylonitrile	B
Adipic Acid	A
Alcohols: Amyl	B
Alcohols: Benzyl	B
Alcohols: Butyl	B
Alcohols: Diacetone	A
Alcohols: Ethyl	B
Alcohols: Hexyl	A
Alcohols: Isobutyl	B
Alcohols: Isopropyl	B
Alcohols: Methyl	A
Alcohols: Octyl	A
Alcohols: Propyl	A
Aluminum Chloride	D
Aluminum Chloride 20%	D
Aluminum Fluoride	B
Aluminum Hydroxide	B
Aluminum Nitrate	D
Aluminum Potassium Sulfate 10%	C
Aluminum Potassium Sulfate 100%	C
Aluminum Sulfate	B
Alums	A
Amines	B
Ammonia 10%	A
Ammonia Nitrate	C

Chemical	72°F (22°C)
Ammonia, anhydrous	A
Ammonia, liquid	A
Ammonium Acetate	A
Ammonium Bifluoride	B
Ammonium Carbonate	B
Ammonium Chloride	B
Ammonium Hydroxide	B
Ammonium Nitrate	B
Ammonium Oxalate	N/A
Ammonium Persulfate	D
Ammonium Phosphate, Dibasic	B
Ammonium Phosphate, Monobasic	B
Ammonium Phosphate, Tribasic	B
Ammonium Sulfate	A
Ammonium Sulfite	D
Amyl Acetate	A
Amyl Alcohol	B
Amyl Chloride	A
Aniline	C
Aniline Hydrochloride	D
Antifreeze	A
Antimony Trichloride	D
Aqua Regia (80% HCl, 20% HNO3)	D
Arochlor 1248	A
Aromatic Hydrocarbons	A
Arsenic Acid	D
Asphalt	A
Barium Carbonate	D
Barium Chloride	D
Barium Cyanide	C
Barium Hydroxide	D
Barium Nitrate	B
Barium Sulfate	B
Barium Sulfide	D
Benzaldehyde	B
Benzene	B
Benzene Sulfonic Acid	D

Key to General Chemical Resistance [all data based on 72°F]

A Excellent B Good – Minor Effect, Slight Corrosion or discoloration C Fair – Moderate Effect, Not Recommended D Severe – Sever Effect – Not Recommemded

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Chemical	72°F (22°C)
Benzoic Acid	B
Benzol	B
Benzyl Chloride	D
Borax (Sodium Borate)	B
Boric Acid	D
Bromine	D
Butadiene	A
Butane	A
Butanol (Butyl Alcohol)	B
Butter	A
Buttermilk	A
Butyl Amine	A
Butyl Ether	A
Butyl Phthalate	B
Butylacetate	A
Butylene	A
Butyric Acid	B
Calcium Bisulfide	C
Calcium Bisulfite	D
Calcium Carbonate	D
Calcium Chloride	D
Calcium Hydroxide	C
Calcium Hypochlorite	D
Calcium Nitrate	B
Calcium Oxide	C
Calcium Sulfate	C
Cane Juice	B
Carbolic Acid (Phenol)	A
Carbon Bisulfide	B
Carbon Dioxide (dry)	B
Carbon Dioxide (wet)	A
Carbon Disulfide	A
Carbon Monoxide	A
Carbon Tetrachloride	D
Carbon Tetrachloride (dry)	D
Carbon Tetrachloride (wet)	D
Carbonated Water	A

Chemical	72°F (22°C)
Carbonic Acid	B
Catsup	D
Chloric Acid	D
Chlorine (dry)	C
Chlorine Water	D
Chlorine, Anhydrous Liquid	D
Chloroacetic Acid	D
Chlorobenzene (Mono)	A
Chloroform	B
Chlorosulfonic Acid	C
Chocolate Syrup	A
Chromic Acid 10%	D
Chromic Acid 30%	D
Chromic Acid 5%	C
Chromic Acid 50%	D
Cider	B
Citric Acid	C
Citric Oils	C
Cloroxr (Bleach)	A
Coffee	A
Copper Cyanide	D
Copper Nitrate	D
Copper Sulfate 5%	D
Copper Sulfate>5%	D
Cream	A
Cresols	A
Cresylic Acid	B
Cupric Acid	D
Cyclohexane	A
Cyclohexanone	A
Detergents	B
Diacetone Alcohol	A
Dichlorobenzene	B
Dichloroethane	B
Diesel Fuel	A
Diethyl Ether	B
Diethylamine	B

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Chemical	72°F (22°C)
Diethylene Glycol	B
Dimethyl Aniline	A
Dimethyl Formamide	A
Diphenyl	B
Diphenyl Oxide	B
Dyes	B
Epsom Salts (Magnesium Sulfate)	B
Ethanol	B
Ethanolamine	B
Ether	B
Ethyl Acetate	A
Ethyl Chloride	B
Ethyl Ether	B
Ethylene Bromide	B
Ethylene Chloride	B
Ethylene Chlorohydrin	B
Ethylene Diamine	B
Ethylene Dichloride	A
Ethylene Glycol	A
Ethylene Oxide	D
Fatty Acids	A
Ferric Chloride	D
Ferric Nitrate	D
Ferric Sulfate	D
Ferrous Chloride	D
Ferrous Sulfate	B
Fluoboric Acid	D
Fluorine	A
Fluosilicic Acid	D
Formaldehyde 100%	A
Formaldehyde 40%	B
Formic Acid	A
Freon 11	D
Freon 12	B
Freon 22	D
Freon TF	D
Fruit Juice	A

Chemical	72°F (22°C)
Fuel Oils	C
Furan Resin	A
Furfural	A
Gallic Acid	D
Gasoline (high-aromatic)	D
Gasoline, leaded, ref.	A
Gasoline, unleaded	A
Gelatin	A
Glucose	A
Glue, P.V.A.	A
Glycerin	A
Heptane	A
Hexane	A
Honey	A
Hydraulic Oil (Petro)	A
Hydraulic Oil (Synthetic)	A
Hydrobromic Acid 100%	D
Hydrobromic Acid 20%	D
Hydrochloric Acid 100%	D
Hydrochloric Acid 20%	D
Hydrochloric Acid 37%	D
Hydrochloric Acid, Dry Gas	D
Hydrocyanic Acid	A
Hydrofluoric Acid 100%	D
Hydrofluoric Acid 20%	D
Hydrofluoric Acid 50%	D
Hydrofluoric Acid 75%	D
Hydrofluosilicic Acid 100%	D
Hydrofluosilicic Acid 20%	D
Hydrogen Gas	A
Hydrogen Peroxide 10%	A
Hydrogen Peroxide 100%	A
Hydrogen Peroxide 30%	A
Hydrogen Peroxide 50%	A
Hydrogen Sulfide (aqua)	B
Hydrogen Sulfide (dry)	B
Hydroquinone	B

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Chemical	72°F (22°C)
Iodine	A
Iodine (in alcohol)	B
Isooctane	A
Isopropyl Acetate	D
Isopropyl Ether	A
Isotane	D
Jet Fuel (JP3, JP4, JP5)	A
Kerosene	A
Ketones	B
Lacquer Thinners	A
Lacquers	A
Lactic Acid	B
Lard	A
Latex	A
Lead Acetate	D
Lead Nitrate	D
Lead Sulfamate	C
Ligroin	D
Lime	A
Linoleic Acid	A
Lithium Chloride	D
Lithium Hydroxide	D
Lye: Ca(OH)2 Calcium Hydroxide	C
Lye: KOH Potassium Hydroxide	D
Lye: NaOH Sodium Hydroxide	D
Magnesium Bisulfate	D
Magnesium Carbonate	A
Magnesium Chloride	D
Magnesium Hydroxide	C
Magnesium Nitrate	B
Magnesium Oxide	B
Magnesium Sulfate (Epsom Salts)	B
Maleic Acid	B
Maleic Anhydride	A
Malic Acid	B
Manganese Sulfate	B
Mash	A

Chemical	72°F (22°C)
Mayonnaise	A
Mercuric Chloride (dilute)	D
Mercuric Cyanide	D
Mercurous Nitrate	D
Mercury	D
Methane	A
Methanol (Methyl Alcohol)	A
Methyl Acetate	A
Methyl Acetone	A
Methyl Alcohol 10%	A
Methyl Bromide	D
Methyl Cellosolve	B
Methyl Ethyl Ketone	B
Methyl Isobutyl Ketone	B
Methyl Isopropyl Ketone	A
Methylamine	A
Methylene Chloride	C
Milk	A
Mineral Spirits	A
Molasses	A
Monochloroacetic acid	D
Monoethanolamine	B
Morpholine	A
Motor oil	A
Mustard	B
Naphtha	A
Naphthalene	B
Natural Gas	A
Nickel Chloride	D
Nickel Nitrate	D
Nickel Sulfate	D
Nitrating Acid (<15% HNO3)	D
Nitrating Acid (>15% H2SO4)	D
Nitrating Acid (S1% Acid)	D
Nitrating Acid (S15% H2SO4)	D
Nitric Acid (20%)	D
Nitric Acid (5-10%)	A

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Chemical	72°F (22°C)
Nitric Acid (50%)	D
Nitric Acid (Concentrated)	D
Nitrobenzene	B
Nitromethane	A
Nitrous Acid	D
Nitrous Oxide	B
Oils: Aniline	D
Oils: Castor	A
Oils: Citric	A
Oils: Clove	B
Oils: Coconut	A
Oils: Cod Liver	A
Oils: Corn	A
Oils: Cottonseed	A
Oils: Creosote	B
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	C
Oils: Hydraulic Oil (Petro)	A
Oils: Hydraulic Oil (Synthetic)	A
Oils: Lemon	A
Oils: Linseed	B
Oils: Mineral	A
Oils: Olive	A
Oils: Orange	A
Oils: Peanut	A
Oils: Peppermint	D
Oils: Pine	A
Oils: Rosin	B
Oils: Silicone	A
Oils: Soybean	A
Oils: Turbine	A
Oleic Acid	A
Oleum 100%	B
Oleum 25%	B
Oxalic Acid (cold)	A
Ozone	B
Palmitic Acid	B
Paraffin	A

Chemical	72°F (22°C)
Pentane	B
Perchloric Acid	D
Perchloroethylene	C
Petroleum	D
Phenol (10%)	A
Phenol (Carbolic Acid)	A
Phosphoric Acid (>40%)	C
Phosphoric Acid (crude)	C
Phosphoric Acid (molten)	C
Phosphoric Acid (S40%)	C
Phosphoric Acid Anhydride	C
Phosphorus	B
Phosphorus Trichloride	D
Phthalic Acid	B
Phthalic Anhydride	A
Picric Acid	C
Potash (Potassium Carbonate)	D
Potassium Bicarbonate	D
Potassium Bromide	C
Potassium Chlorate	B
Potassium Chloride	D
Potassium Chromate	B
Potassium Cyanide Solutions	D
Potassium Dichromate	B
Potassium Ferricyanide	B
Potassium Ferrocyanide	B
Potassium Hypochlorite	D
Potassium Iodide	B
Potassium Nitrate	B
Potassium Oxalate	B
Potassium Permanganate	B
Potassium Sulfate	C
Potassium Sulfide	D
Propane (liquefied)	A
Propylene	A
Propylene Glycol	B
Pyridine	B

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Chemical	72°F (22°C)
Pyrogallic Acid	B
Rosins	B
Salad Dressings	B
Salicylic Acid	B
Salt Brine (NaCl saturated)	B
Sea Water	B
Shellac (Bleached)	A
Shellac (Orange)	A
Silicone	A
Silver Nitrate	D
Soap Solutions	C
Soda Ash (see Sodium Carbonate)	D
Sodium Acetate	B
Sodium Benzoate	A
Sodium Bicarbonate	D
Sodium Bisulfate	D
Sodium Bisulfite	D
Sodium Borate (Borax)	C
Sodium Bromide	D
Sodium Carbonate	D
Sodium Chlorate	C
Sodium Chloride	C
Sodium Chromate	B
Sodium Cyanide	D
Sodium Ferrocyanide	A
Sodium Fluoride	B
Sodium Hydrosulfite	A
Sodium Hydroxide (20%)	D
Sodium Hydroxide (50%)	D
Sodium Hydroxide (80%)	D
Sodium Hypochlorite (<20%)	D
Sodium Hypochlorite (100%)	D
Sodium Hyposulfate	D
Sodium Metaphosphate	C
Sodium Metasilicate	D
Sodium Nitrate	B
Sodium Perborate	C

Chemical	72°F (22°C)
Sodium Peroxide	C
Sodium Polyphosphate	D
Sodium Silicate	A
Sodium Sulfate	A
Sodium Sulfide	D
Sodium Sulfite	C
Sodium Tetraborate	C
Sodium Thiosulfate (hypo)	A
Stannic Chloride	D
Stannous Chloride	D
Starch	A
Stearic Acid	B
Stoddard Solvent	A
Styrene	A
Sugar (Liquids)	A
Sulfate (Liquors)	D
Sulfur Chloride	D
Sulfur Dioxide	B
Sulfur Dioxide (dry)	B
Sulfur Trioxide	A
Sulfur Trioxide (dry)	A
Sulfuric Acid (<10%)	D
Sulfuric Acid (10-75%)	D
Sulfuric Acid (75-100%)	D
Sulfuric Acid (cold concentrated)	B
Sulfuric Acid (hot concentrated)	D
Tannic Acid	C
Tanning Liquors	A
Tartaric Acid	B
Tetrachloroethane	C
Tin Salts	D
Toluene (Toluol)	A
Tomato Juice	A
Trichloroacetic Acid	D
Trichloroethane	D
Trichloroethylene	D
Trichloropropane	D

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Chemical	72°F (22°C)
Tricresylphosphate	D
Trisodium Phosphate	D
Turpentine	A
Urea	B
Uric Acid	D
Urine	B
Varnish	A
Vegetable Juice	D
Vinegar	D
Vinyl Acetate	A
Vinyl Chloride	B
Water, Acid, Mine	D

Chemical	72°F (22°C)
Water, Deionized	A
Water, Distilled	A
Water, Fresh	B
Water, Salt	B
Weed Killers	D
Whey	B
Whiskey & Wines	C
White Liquor (Pulp Mill)	B
Xylene	A
Zinc Chloride	D
Zinc Hydrosulfite	D
Zinc Sulfate	D

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