

SunWave™ Prismatic Skylight

Acrylic & Polycarbonate Compatibility List

Product Information

Description:

Certain chemicals that may exist in end-user locations release airborne contaminants that can impact the integrity and safety of key fixture components that contain acrylic or polycarbonate material. Immediate damage may occur such as crazing, cracking, permeation losses and mechanical failure. Products with visually noticeable deterioration have diminished integrity and must be replaced immediately with a more suitable product for the application. Firestone Building Products offers limited warranties for its SunWave products that exclude warranty obligations if a leak is caused by any acid, oil, harmful chemical, or chemical or physical reaction which causes damage or impairs the Firestone SunWave's ability to resist leaks or cracks.

The following tables identify the most common chemicals that may exist in end-user locations and is not intended to be all-inclusive. Exposure to compounds identified as "Not Acceptable" will void warranty obligations related to leaks. Acrylic or polycarbonate components should not be used in areas where these chemicals are used and where these chemicals become mists or airborne vapors. Ensure that chemical interactions are considered when selecting fixtures. For additional information please consult your Firestone Sales Representative or Building Systems Advisor.

The statements, technical information and recommendations obtained herein are believed to be accurate as of June 1, 2009.

Acrylic Environmental Compatibility

NOT ACCEPTABLE		
Acetaldehyde	Cinnamon Oil	Methyl Salicylate
Acetates	Cloves	Methylamine
Acetic Acid, Glacial, 50%	Cosmoline Removers	Methylene Dichloride
Acetic Anhydride	Cresol	Mineral Oil @ 104 °F+ (40 °C+)
Acetone	Cyclohexane	Nail Polish
Acetonitrile	Cyclohexanone	Naphtha
Acetophenone	Cyclohexene	n-butyric Acid, 100%
Acrylic Paints	Diacetone Alcohol	Nitric Acid, 40%+
Alcohol, Allyl	Diamyl Phthalate	Nitrobenzene
Alcohol, Amyl	Dibutyl Sebacate	Nitrocellulose
Alcohol, Benzyl	Diethyl Ether	n-Octane
Alcohol, Butyl (Butanol)	Dimethyl Formamide	Oleum
Alcohol, Ethyl (Ethanol), 50%+	Diocetyl Sebacate	Organic Solvents
Alcohol, Isopropyl	Dioxane	Paint Removers
Alcohol, Methyl (Methanol), 10%+	Ether	Paint Thinner
Aluminum Hydroxide	Ethyl Acetate	Perchlorethylene
Amyl Acetate	Ethyl Bromide	Petroleum Ether (212-248 °F, 100-120 °C)
Ammonia @ 104 °F+ (40 °C+)	Ethyl Butyrate	Phenols
Aniline	Ethylene Bromide	Phosphoric Acid, 95%
Aromatic Solvents	Ethylene Chloride	Phosphoric Trichloride
Aviation Fuel (100 Octane)	Ethylene Dibromide	Phthalates
Benzaldehyde	Ethylene Oxide (Moist)	Pyridine
Benzene	Fluorides	Salicylic Acid

Acrylic Environmental Compatibility - Continued

NOT ACCEPTABLE

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Firestone Building Products

Acrylic & Polycarbonate Compatibility List

Benzoic Aldehyde	Formic Acid	Silicon Tetrachloride
Bituminous Emulsions	Fuels w/ Benzene (Gasoline)	Sodium Phosphate
Brake Fluid	Glycol	Sulfoxides
Bromine Gas	Hydrofluoric Acid	Sulfur Dioxide, Liquid
Butraldehyde	Hydrochloric Acid, 40%+	Sulfuric Acid, 65% @ 104 °F+ (40 °C+)
Butyl Acetyl Ricinoleate	Hydrogen Peroxide, 40%+	Sulfurous Acid, Concentrated
Butyl Lactate	Iron Perchloride	Tincture of Iodine, 5%
Butyl Stearate	Isoctane	Toluene
Carbolic Acid	Ketones	Transformer Oil
Carbon Disulfide	Lacquer Thinner	Trichloroethane
Carbon Tetrachloride	Lactic Acid Butyl Ester	Trichloroacetic Acid
Cellulose Paints	Mercury Chloride	Trichloroethylene
Chlorinated Hydrocarbons	Meta-Cresol	Turpentine
Chlorinated Solvents	Methyl Benzoate	Vegetable Oil
Chlorine Gas	Methyl Chloride	Xylene
Chlorophenol	Methyl Cyclohexanol	----
Chromic Acid	Methyl Naphthalene	----

Acrylic Environmental Compatibility

ACCEPTABLE		
2-Ethylhexyl Sebacate	Fruit Juice	Potassium Chlorate
Acetic Acid, 5%	Glycerol (Glycerine)	Potassium Cyanide
Ammonia-Based Cleaners @ 77 °F (25 °C)	Heptane	Potassium Dichromate, 10%
Ammonia @ 77 °F (25 °C)	Hexane	Potassium Hydroxide @ 77 °F (25 °C)
Ammonium Hydroxide, 28%	Hydrochloric Acid, 38%	Potassium Permanganate
Ammonium Nitrate	Hydrogen Peroxide, 30%	Potassium Sulfite
Ammonium Phosphate	Hydrogen Sulfide	Power Steering Fluid
Aniseed, Bay Leaves, Nutmeg	Kerosene	Propylene
Anti-freeze	Lactic Acid, 20%	Pure-oil Paints
Beer	Metal Carbonates	Silicone Oil
Bleaching Powder Paste	Metal Chlorides	Silver Nitrate
Bleaching Powder Solution, 5%	Metal Sulfates	Soap Suds
Butane	Methane Gas	Sodium Chloride, 10%
Calcium Hypochlorite	Milk	Sodium Cyanide
Car Wash Detergent	Motor Oil	Sodium Fluoride
Carbon Dioxide Gas	Natural Gas	Sodium Hydroxide, 60%
Carbon Monoxide Gas	Nitric Acid, 20%	Sodium Hypochlorite, 15%
Caustic Potash	Nitric Oxide	Sodium Nitrate
Chlorine Based Cleaners @ 25 °C	Nitrogen Dioxide Gas	Sodium Thiosulphate, 40%
Chlorine, Aqueous, 2%	Nitrogen Monoxide Gas	Stearic Acid
Citric Acid, 20%	Olefinic Carbolic Acids	Sulfur Dioxide, Dry Gas
Coffee (Unflavored)	Oleic Acid	Sulfuric Acid, 30% @ 77 °F (25 °C)
Cooking Oil	Olive Oil	Sulfurous Acid, 5%
Cottonseed Oil	Oxalic Acid, 100%	Tartaric Acid, 50%
Diethylene Glycol	Oxygen Gas	Transmission Fluid

Acrylic Environmental Compatibility - Continued

ACCEPTABLE		
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Epoxy Adhesives	Ozone Gas	Tricresyl Phosphate
Ethyl Alcohol, 15%	Paraffin, Medicinal	Triethyl Amine
Ethylene Glycol	Pepper, Onions	Vinegar
Ethylene Oxide (Dry)	Phosphoric Acid, 10%	Wax Polish
Ferric Chloride, Aqueous, 10%	Photographic Baths	Whitewash
Formaldehyde, Aqueous, 40%	Polishing Compounds	Wine

Polycarbonate Environmental Compatibility

NOT ACCEPTABLE		
Acetaldehyde, 100%	Chromic Acid	Methylene Dichloride
Acetates	Clove Oil	Mineral Oil @ 104 °F+ (40 °C+)
Acetic Acid, Glacial, 100%	Cosmoline Removers	Mineral Spirits
Acetic Anhydride	Cresol	Nail Polish
Acetone	Cutting Fluids and Oils	Naphtha (Petroleum Ether)
Acetonitrile	Cyclohexanone	Naphthenic Acids
Acetophenone	Cyclohexene	n-butyric Acid, 100%
Alcohol, Allyl	Diamyl Phthalate	Nitric Acid, 25%+
Alcohol, Amyl	Dibutyl Sebacate	Nitrobenzene
Alcohol, Benzyl	Diethyl Ether	n-Octane
Alcohol, Ethyl (Ethanol), 50%	Dimethyl Formamide	Oleum
Alcohol, Isopropyl, 100%	Diocetyl Sebacate	Paint Removers
Alcohol, Methyl (Methanol), 50%	Dioxane	Paint Thinner
Aluminum Hydroxide	Ether	Perchloroethylene
Amines	Ethyl Acetate	Phenols
Ammonia	Ethyl Alcohol, Concentrated	Phenol, Aqueous, 5%
Ammonium Hydroxide	Ethyl Bromide	Phthalates
Amyl Acetate	Ethyl Butyrate	Potassium Hydroxide (Potash)
Aniline	Ethylene Bromide	Propane
Aromatic Hydrocarbons	Ethylene Dibromide	Pyridine
Aviation Fuel	Ethylene Oxide	Sodium Hydroxide
Benzaldehyde	Freon	Sodium Hypochlorite, 30%
Benzene	Fuels w/ Benzene (Gasoline)	Sodium Nitrate
Benzoic Aldehyde	Glass Cleaners	Sodium Sulfide
Brake Fluid	Hydrochloric Acid, 25%+	25Sulfoxides
Bromine	Hydrofluoric Acid	Sulfur Dioxide
Butadiene	Hydrogen Peroxide, 40%+	Sulfuric Acid, 70%+
Butane	Isocane	Sulfurous Acid
Butyl Acetyl Ricinoleate	Kerosene	Tea
Butyl Stearate	Ketones	Tincture of Iodine, 5%
Calcium Hypochlorite	Lacquer Thinner	Toluene
Carbolic Acid	Lactic Acid Butyl Ester	Transformer Oil
Carbon Disulfide	Meta-Cresol	Trichloroacetic Acid
Carbon Tetrachloride	Methyl Benzoate	Trichloroethane
Cellulose Paints	Methyl Chloride	Trichloroethylene
Chlorinated Hydrocarbons	Methyl Cyclohexanol	Triethanalomine
Chlorinated Solvents	Methyl Ethyl Ketone	Turpentine

Polycarbonate Environmental Compatibility - Continued

SunWave™ Prismatic Skylight Acrylic & Polycarbonate Compatibility List

NOT ACCEPTABLE		
Chlorine	Methyl Naphthalene	Urea
Chlorophenol	Methyl Salicyclate	Xylene
Diacetone Alcohol	Methylamine	----

Polycarbonate Environmental Compatibility		
ACCEPTABLE		
Acetic Acid, 5%	Hydrochloric Acid, 15%	Silicone Oil
Ammonium Chloride	Hydrogen Peroxide, 30%	Silver Nitrate
Ammonium Phosphate	Lactic Acid, 20%	Soap Solutions
Ammonium Sulfate	Linseed Oil	Sodium Bicarbonate
Aniseed, Bay Leaves	Metal Carbonates	Sodium Chlorate
Anti-freeze	Metal Chlorides	Sodium Chloride, 10%
Beer	Metal Sulfates	Sodium Hypochlorite, 15%
Benzoic Acid	Methane Gas	Sodium Peroxide
Bleaching Powder Solution, 2%	Milk	Sodium Thiosulphate, 40%
Boric Acid, 10%	Mineral Oil @ 77 °F (25 °C)	Stearic Acid
Car Wash Detergent	Motor Oil	Sulfur Dioxide, Dry Gas
Carbon Dioxide	Natural Gas	Sulfuric Acid, 30%
Carbon Monoxide	Nitric Acid, 10%	Sulfurous Acid, 5%
Carbonic Acid	Nitrogen Dioxide Gas	Tannic Acid, 10%
Chlorine-base Cleaners (Clorox)	Oleic Acid	Tartaric Acid, 50%
Cinnamon, Onions	Olive Oil	Transmission Fluid
Citric Acid, 10%	Oxalic Acid, 100%	Tripropylene Glycol
Cooking Oil	Oxygen	Vegetable Oils
Cottonseed Oil	Paraffin, Medicinal	Vinegar
Cyclohexane	Phosphoric Acid, 30%	Water, Mineral Water
Diethylene Glycol	Photographic Baths	Wax Polish
Epoxy Adhesives	Polishing Compounds	Wine
Ethyl Alcohol, 15%	Potassium Bromate	Zinc Sulfate
Ethylene Glycol E	Potassium Bromide	----
Fatty Acids @ 77 °F (25 °C)	Potassium Chlorate	----
Ferric Chloride, Aqueous, 10%	Potassium Dichromate, 10%	----
Formaldehyde, Aqueous, 40%	Potassium Permanganate	----
Fruit Juice	Potassium Sulfate	----
Glycerol, Glycerine	Power Steering Fluid	----
Heptane	Propylene	----
Hexane @ 77 °F (25 °C)	Salicyclic Acid @ 77 °F (25 °C)	----

Please contact Quality Building Services Technical Department at 1-800-428-4511 for further information.

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