

Chemical compatibility

The chemical compatibility reference guide has been developed to assist you in selecting the best StoneL products and material options for your applications. While this chart should assist you in selecting compatible materials, it is not a substitute for careful testing of a specific product in your operating environment. For additional assistance please contact StoneL technical support.

Key

A	No effect (recommended)
B	Moderate effect
U	Severe effect (not recommended)
FC	Fusion coating recommended on polycarbonate
---	No test data or experience available

Chemical	Aluminum	Polycarbonate	Stainless Steel	Epoxy	Polysulfone
Acetic acid	A	B	A	B	A
Acetone	A	FC	A	U	B
Acetylene	A	--	A	A	--
Alcohol, amyl-	B	FC	A	A	A
Alcohol, butyl-	B	FC	A	A	A
Alcohol, ethyl-	B	FC	B	A	B
Ammonia, liquid	A	--	A	A	A
Ammonium hydroxide	B	FC	B	A	B
Beer	A	A	A	A	A
Benzene	B	FC	A	B	U
Boric acid	B	A	B	A	U
Brine	U	B	B	--	A
Bromine	U	FC	U	U	U
Calcium carbonate	U	--	B	A	--
Calcium chloride	B	A	B	A	A
Carbon tetrachloride	U	FC	B	A	A
Chlorine	B	FC	B	--	U
Chromic acid	U	B	U	B	U
Citric acid	U	B	A	A	A
Creosote	B	FC	B	--	--
Ethyl chloride	--	--	A	A	U
Ethylene	A	--	A	--	A
Ethylene oxide	U	--	B	A	A
Fluorine	B	--	A	U	U
Freon (and other similar refrigerant)	B	--	A	A	B
Gasoline	A	FC	A	A	B
Heptane and hexane	A	B	A	A	A
Hydrochloric acid, 10%	U	A ¹	U	A	A
Hydrogen (gas)	A	--	A	--	--
Hydrogen peroxide	A	A	B	B	A
Hydrogen sulfide	B	A	A	A	--
Isopropyl ether	A	A	A	U	A
Jet fuel (JP 4,5,6)	A	--	A	A	B
Kerosene	A	--	A	A	B
Methane	A	--	B	--	--
Methyl chloride	U	FC	A	A	U

¹ Temperatures less than 30° C

Chemical	Aluminum	Polycarbonate	Stainless Steel	Epoxy	Polysulfone
Methyl ethyl ketone	B	FC	A	B	U
Methylene chloride	B	FC	A	A	U
Naptha	A	FC	B	A	A
Natural gas	A	--	A	--	--
Nickel chloride	U	FC	B	A	--
Nitric acid (10%)	B	A	A	A	A
Nitric acid (80%)	U	B	B	U	U
Nitrous oxide	U	--	B	--	--
Oils (animal)	A	B	A	A	--
Oil (diesel)	A	A	A	A	A
Oil (mineral)	A	B	A	A	A
Phosphoric acid (85%)(air free)	U	B	U	B	A
Potassium chloride	U	A	B	A	A
Potassium hydroxide (10%)	U	FC	A	A	A
Potassium hydroxide (70%)	U	FC	A	A	A
Potassium phosphate	U	---	A	--	--
Propane (LP gas)	A	A	B	A	B
Soaps and detergents	B	B	A	A	A
Sodium chloride	B	A	B	A	A
Sodium hydroxide (10%) (caustic soda)	U	B	A	A	A
Sodium hydroxide (50%) (caustic soda)	U	FC	B	A	A
Sodium phosphate (monobasic)	U	--	A	A	--
Sulfur dioxide	B	B	A	A	B
Sulfuric acid (7-40%)	U	A	U	A	A
Tannic acid	B	B	B	A	A
Toluol and toluene	A	FC	A	B	U
Turpentine	B	B	B	B	B
Urea	B	A	B	--	B
Vinyl Chloride	B	--	B	--	--
Water, salt	U	--	B	A	A

