

Chemical Compatibility Formulation Comparison

Tygon® S3 E-3603, Tygon® LMT-55 and Tygon® R3603

28 Day Immersions at 73°F

E = Excellent

G = Good

F = Fair

U = Not Recommended

Environment, Conc. % ⁽¹⁾	Tygon S3 E-3603	Tygon LMT-55	Tygon R-3603
Acetic Acid, Glacial, 100%	F	U	U
Bleach Liquor, 22% in w	F	E	E
Chlorine, Wet Gas	F	G	G
Cresol (m, o, or p)	F	U	U
Fluoboric Acid, 48% in w	F	E	E
Formic Acid, 98% in w	F	G	G
Hydrobromic Acid, 100% in w	F	E	E
Hydrochloric Acid, 37% in w	F	E	E
Hydrofluoric Acid, 25% in w	F	E	E
Hydrofluoric Acid, 40-48% in w	U	G	G
Nitric Acid, 35% in w	G	E	E
Oxalic Acid, 12% in w	F	G	G
Perchloric Acid, 67% in w	U	F	F
Phenol, 91% in w	F	U	U
Phosphoric Acid, 85% in w	F	E	E
Phosphorous Trichloride Acid	F	E	E
Potassium Hypochlorite, 70% in w	F	E	E
Sodium Hydroxide, 30-40% in w	G	F	F
Sodium Hypochlorite, 12.2% in w	F	E	E
Tannic Acid, 75% in w	F	G	G
Triethanolamine	E	U	U

If concentration is not indicated, assume 100% concentration or the maximum percent solubility in water.

NOTE - Concentrations of room temperature liquids are given in % volume. Concentrations of room temperature solids are given in % weight.

w = Water

alc = Alcohol

Chemical Resistance Properties

The ratings above are based on the results of laboratory tests. They reflect the relative capabilities of various Saint-Gobain Performance Plastics tubing formulations to withstand specific chemicals.

NOTE: The ratings in the charts DO NOT reflect the extent to which extraction may occur or the extent to which fluids may undergo any physical changes in properties or composition, as a result of coming into contact with the tubing. Saint-Gobain Performance Plastics makes no representation or warranty with respect to the susceptibility of any fluid to become contaminated or undergo changes in properties or composition as a result of possible extraction of tubing ingredients by the fluid to be transmitted. Certain corrosives that would be destructive to the tubing with prolonged exposures can be satisfactorily handled for short periods of time if flushed with water after use. All ratings are based on room temperature (73 F). Chemical resistance will be adversely affected by elevated temperatures.

IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses, including establishing the compatibility of any fluid with the tubing through which it is transmitted. Laboratory, field or clinical tests must be conducted in accordance with applicable requirements in order to determine the safety and effectiveness for use of tubing in any particular application. If intended for medical use, it is the user's responsibility to ensure that the tubing to be used complies with all applicable medical regulatory requirements.