



FluoroGrip® - F

Teflon® (FEP) Fluoropolymer

CHEMICAL RESISTANCE DATA

TABLE 1: FEP – Effect of Chemical Immersion (168 hr)

Chemical	Test Temperature		% Retained Physicals		% Weight Gain
	°C	°F	Tensile	Elongation	
INORGANIC CHEMICALS					
<u>Mineral Acid</u>					
Hydrochloric (Conc)	120	248	98	100	0.0
Sulfuric (Conc)	120	248	95	98	0.0
Hydrofluoric (60%)	23	73	99	99	0.0
Fuming Sulfuric	23	73	95	96	0.0
<u>Oxidizing Acids</u>					
Aqua Regia	120	248	99	100	0.0
Chromic (50%)	120	248	93	97	0.0
Nitric (Conc)	120	248	95	98	0.0
Fuming Nitric	23	73	99	99	0.0
<u>Inorganic Bases</u>					
Ammonium Hydroxide (Conc)	66	150	98	100	0.0
Sodium Hydroxide (50%)	120	248	93	99	0.4
<u>Peroxide</u>					
Hydrogen Peroxide (30%)	23	73	93	95	0.0
<u>Halogens</u>					
Bromine	23	73	99	100	0.5
Bromine	59*	138	95	95	**
Chlorine	120	248	92	100	0.5
<u>Metal Salt Solutions</u>					
Ferric Chloride	100	212	93	98	0.0
Zinc Chloride (25%)	100	212	96	100	0.0
<u>Other Inorganics</u>					
Sulfuryl Chloride	69*	156	83	100	2.7
Chlorosulfonic Acid	151*	304	91	100	0.7
Phosphoric Acid (Conc)	100	212	93	100	0.0
ORGANIC CHEMICALS					
<u>Acids / Anhydrides</u>					
Glacial Acetic Acid	118*	244	95	100	0.4
Acetic Anhydride	139*	282	91	99	0.3
Trichloroacetic Acid	196*	384	90	100	2.2
<u>Hydrocarbons</u>					
Isooctane	99*	210	94	100	0.7
Naphtha	100	212	91	100	0.5
Mineral Oil	180	356	87	95	0.0
Toluene	110	230	88	100	0.7

* Boiling Point

** No Data

Chemical	Test Temperature		% Retained Physicals		% Weight Gain
	°C	°F	Tensile	Elongation	
ORGANIC CHEMICALS					
<u>Functional Aromatics</u>					
O-Cresol	191*	376	92	96	0.2
Nitrobenzene	210*	410	90	100	0.7
<u>Alcohol</u>					
Benzyl Alcohol	205*	401*	93	99	0.3
<u>Amines</u>					
Aniline	185*	365	94	100	0.3
nButylamine	78*	172	86	97	0.4
Ethylenediamine	117*	242	96	100	0.1
<u>Ether</u>					
Tetrahydrofuran	66*	151	88	100	0.7
<u>Ketones / Aldehydes</u>					
Benzaldehyde	179*	355	90	99	0.5
Cyclohexanone	156*	312	92	100	0.4
Methyl Ethyl Ketone	80*	176	90	100	0.4
Acetophenone	202*	396	90	100	0.6
<u>Esters</u>					
Dimethylphthalate	220	392	98	100	0.3
nButylacetate	125*	257	93	100	0.5
Tri-n-Butyl Phosphate	200	392	91	100	2.0
<u>Chlorinated Solvents</u>					
Methylene Chloride	40*	104	94	100	0.8
Perchloroethylene	121*	250	86	100	2.0
Carbon Tetrachloride	77*	171	87	100	2.3
<u>Polymer Solvents</u>					
Dimethylformamide	154*	309	96	100	0.2
Dimethylsulfoxide	189*	372	95	100	0.1
Dioxane	101*	214	92	100	0.6

* Boiling Point

** No Data

Chemical	Exposure Results	
	% Concentration	%Weight Change
Hydrochloric Acid	35	0.0
Sulfuric Acid	98	0.0
Nitric Acid	60	-0.1
Fluoric Acid	50	0.0
Acetic Acid	50	0.0
Chromic Acid	50	0.0
Acetic Anhydride	100	+0.1
Caustic Soda	50	0.0
Ammonia Water	100	0.0
Potassium Dichromate	50	0.0
Sodium Chloride	28	0.0
Methyl Alcohol	10	0.0
Ethyl Alcohol	30	0.0
Acetone	100	+0.2
Carbon Tetrachloride	100	+2.2
Chloroform	100	+1.1
Trichloroethylene	100	+1.1
Toluene	100	+0.3
Xylene	100	+0.3
Benzene	100	+0.4
n-Hexane	100	+0.5
Methyl Ethyl Ketone	100	+0.3
Aniline	100	0.0
Ethyl Acetate	100	+0.3
Ether	100	+0.3
Dioxane	100	+0.3
Diethylamine	100	+0.6
Formaldehyde	100	0.0
Phenol	100	0.0

Integument

Integument Technologies, Inc.

70 Pearce Avenue, Tonawanda, NY 14150
 Phone: (716) 873-1199 • Fax: (716) 873-1303
 e-mail: info@integument.com
www.integument.com