

Kaltraz™ Resistance to Acid Solutions

CHEMICALS	Immersion Conditions		Retention (%)			Change Ratio	
	Temperature (C)	Time (Days)	Tensile Strength	Elongation	100% Modulus	Hardness (point)	Volume Change (%)
Fuming Sulfuric Acid	R.T.	7	76	98	115	-2	4.2
"	"	30	-	-	-	+1	0.7
"	"	90	-	-	-	-	5.1
"	"	180	-	-	-	-	7.4
96% Sulfuric Acid	100°	3	99	101	73	-3	4.4
"	R.T.	7	98	99	92	-3	0.4
"	"	30	-	-	-	+1	0.2
"	"	90	-	-	-	-	1.1
"	"	180	-	-	-	-	2.3
60% Sulfuric Acid	100°	3	107	104	116	+1	0.4
"	R.T.	7	103	98	102	-1	0.1
"	"	30	-	-	-	+1	0.3
"	"	90	-	-	-	-	0.2
"	"	180	-	-	-	-	0.4
20% Sulfuric Acid	100°	3	99	98	103	-3	0.4
"	R.T.	7	102	105	93	-1	-0.5
"	"	30	-	-	-	+1	0.4
Fuming Nitric Acid	R.T.	7	42	126	49	-7	19
"	"	30	-	-	-	-2	15.8
"	"	90	-	-	-	-	14.8
"	"	180	-	-	-	-	14.9
98% Nitric Acid	R.T.	7	-	-	-	-	-
"	"	30	-	-	-	-10	21.4
"	"	90	-	-	-	-	20.6
"	"	180	-	-	-	-	23.1
60% Nitric Acid	100°	3	-	-	-	-18	34
"	70°	3	44	107	61	-3	10
"	40°	3	-	-	-	+1	1.2
"	R.T.	7	94	95	91	-1	1.3
"	"	30	-	-	-	0	1.0
"	"	90	-	-	-	-	2.0
"	"	180	-	-	-	-	5.1
20% Nitric Acid	100°	3	43	93	50	-10	23
"	70°	3	42	90	58	-13	25
"	40°	7	105	114	111	-1	-5.0
"	R.T.	30	-	-	-	+1	0.4
"	"	90	-	-	-	-	0.5
"	"	180	-	-	-	-	1.3
37% Hydrochloric Acid	70°	3	57	112	74	-2	7.0
"	40°	3	77	88	108	-4	2.3
"	R.T.	7	100	107	118	+1	0.2
"	"	30	-	-	-	+1	0.7
"	"	90	-	-	-	-	1.8
"	"	180	-	-	-	-	4.5
20% Hydrochloric Acid	100°	3	67	98	92	-7	6.5
"	70°	3	58	85	92	-6	7.4
"	R.T.	7	103	107	112	-1	-4.6
"	"	30	-	-	-	+1	0.7
50% Hydrofluoric Acid	R.T.	7	63	117	100	+6	1.5
"	"	30	-	-	-	0	1.7
"	"	90	-	-	-	-	2.9
"	"	180	-	-	-	-	4.1

R.T. = Room Temperature