

Kaltraz™ Resistance to Alkali Solutions

CHEMICALS	Immersion Conditions		Retention (%)			Change Ratio	
	Temperature (C)	Time (Days)	Tensile Strength	Elongation	100% Modulus	Hardness (point)	Volume Change (%)
50% Sodium Hydroxide	180°	3	102	91	86	+1	1.5
"	180°	7	96	94	81	0	-0.3
"	180°	30	117	81	126	+2	-0.1
"	100°	3	101	116	96	-1	1.1
"	R.T.	7	108	116	75	+2	1.2
"	R.T.	30	-	-	-	-1	0.3
"	R.T.	90	-	-	-	-	0.7
"	R.T.	180	-	-	-	-	0.5
20% Sodium Hydroxide	100°	3	95	117	92	-3	2.0
"	R.T.	7	85	104	100	-1	-0.3
"	R.T.	30	-	-	-	+1	-0.1
7% Ammonia Solution	140°	30	87	107	68	-8	16.1
28% Ammonia Solution	70°	3	82	116	116	-1	3.2
"	R.T.	7	-	-	-	0	1.3
"	R.T.	30	-	-	-	+1	0.8
"	R.T.	90	-	-	-	-	1.0
"	R.T.	180	-	-	-	-	2.5

Kaltraz™ Resistance to other Chemical Solutions

CHEMICALS	Immersion Conditions		Retention (%)			Change Ratio	
	Temperature (C)	Time (Days)	Tensile Strength	Elongation	100% Modulus	Hardness (point)	Volume Change (%)
Water	100°	3	89	117	117	0	1.1
Steam	160°	7	91	84	110	-3	4.6
Bromine	R.T.	7	54	136	-	-	6.2
Bromine (32%) + Hydrochloric Acid (18%) + Sulfuric Acid (25%)	100°	1	66	112	95	-8	6.0
Chlorine Solution (saturated)	100°	4	22	28	87	-10	169
Chlorine Solution (saturated) + Sodium Chloride (35%) + Sodium Hypochlorous Acid (pH 9.6)	100°	2.5	69	78	86	-9	5.9
Bleaching Liquor Ca (C10) 2 (10%)	100°	7	112	89	148	-2	0
Sodium Hypochlorous Acid (10%)	100°	7	100	95	114	-1	1.0
Sodium Chlorous Acid (10%)	100°	7	80	93	57	-12	22
Sodium Chlorous Acid (10%) + Acetic Acid (Ph 3.5)	100°	1	67	105	39	-16	24
Sodium Chlorous Acid (10%) + Sodium Hydroxide (5%)	100°	7	888	85	108	0	0.6
Sulfur Dioxide (5%)	40°	2	69	84	86	-4	7.8
Hydrogen Peroxide (30%)	100°	7	105	99	110	0	-1.1
Hydrogen Peroxide (30%) + Sodium Hydroxide (3%)	100°	7	107	111	96	-2	-1.8
Lithium Bromide (60%)	160°	11	106	106	113	+1	-0.3
Lithium Chromic Acid	200°	11	99	110	87	+1	-0.3
Organic Stabilizer	200°	11	95	118	90	+3	-0.2
Potassium Fluoride + Hydrofluoric Acid (1:1.8)	85°	11	94	111	109	-3	0.4
Triethylene Glycohol	230°	11	88	148	-	-5	7.7

R.T. = Room Temperature