

Chemical Resistance Chart for IWAKI Metering Pumps

Explanation of footnotes

* : PVC braided hose is not recommended.

(**) : "BVC" type (check valve) is to be used.

1 Not suitable

0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
1	Acetaldehyde	CH ₃ CHO			-	-	-	-	-	60	-	-	20	
2	Acetaldehyde Aqueous	CH ₃ CHO			-	-	-	-	60	-	-	-	-	
3	Acetamide	CH ₃ CONH ₂			-	-	-	-	20	-	-	-	-	
4	Acetic Acid	CH ₃ COOH		10	40	20	40	40	40	20	40	60	20	
5	Acetic Acid	CH ₃ COOH		20	20	20	40	20	20	20	20	60	20	
6	Acetic Acid	CH ₃ COOH		50	20	-	-	20	20	-	20	60	20	
7	Acetic Acid	CH ₃ COOH		80	20	-	-	20	20	-	20	40	20	
8	Acetic Acid (Glacial)	CH ₃ COOH		98	-	-	-	-	-	-	-	-	-	
9	Acetic Anhydride	(CH ₃ CO ₂) ₂ O		Pure	-	-	-	-	-	-	-	20	20	
10	Acetone	CH ₃ COCH ₃			-	-	-	-	-	20	-	-	20	
11	Acetone Aqueous	CH ₃ COCH ₃			40	20	20	40	60	20	60	60	20	
12	Acetonitrile	CH ₃ CN			-	-	-	-	-	-	-	40	-	
13	Acetophenone	C ₆ H ₅ O			-	-	-	-	-	-	-	20	-	
14	Acetyl Acetone	CH ₃ COCH ₂ COCH ₃			-	-	-	-	-	-	-	-	20	
15	Acetyl Bromid	CH ₃ COBr			-	-	-	-	-	-	-	-	-	
16	Acetyl Chloride	CH ₃ COCl			-	-	-	-	-	-	-	40	-	
17	Acetylene	C ₂ H ₂			-	-	-	-	60	-	60	60	20	
18	Acrylonitrile	CH ₂ =CHCN			-	20	20	-	-	20	-	40	20	
19	Acrylic Acid Ethyl Ester				-	-	-	-	-	-	-	40	-	
20	Adipic Acid Aqueous	HO ₂ C(CH ₂) ₄ CO ₂ H		Satu	40	20	-	40	60	20	60	60	-	
21	Allyl Chloride	CH ₂ =CHCH ₂ Cl			-	-	-	-	-	-	20	20	-	
22	Allyl Alcohol	CH ₂ =CHCH ₂ OH			-	-	-	-	60	-	60	60	20	
23	Almium Acetate	(CH ₃ CO ₂) ₃ Al		Satu	40	20	20	40	40	20	60	60	20	
24	Alminum Bromide	AlBr ₃		Satu	40	-	-	40	60	-	60	60	-	
25	Aluminum Ammonium Sulfate	(NH ₄) ₂ SO ₄ ·Al ₂ (SO ₄) ₃		Satu	-	-	-	-	60	-	60	60	-	
26	Aluminum Chloride	AlCl ₃		Satu	40	20	-	40	60	20	60	60	-	
27	Aluminum Fluoride	AlF ₃		Satu	-	-	-	-	-	-	-	-	-	
28	Aluminum Hydroxide	Al(OH) ₃		Satu	40	-	-	40	60	-	60	60	-	
29	Aluminum Nitrate	Al(NO ₃) ₃ ·9H ₂ O		Satu	40	-	-	40	60	-	60	60	-	
30	Aluminum Sulfate	Al ₂ (SO ₄) ₃			40	20	40	40	60	20	60	60	20	
31	Amber Acid	COOH(CH ₂) ₂ COOH			40	-	-	40	60	-	60	60	-	
32	Ammonia Gas	NH ₃		100	-	20	20	-	-	20	-	60	20	
33	Ammonia Liquid	NH ₃			-	-	-	-	-	20	-	60	20	
34	Ammonia Water	NH ₄ OH		10	20	20	20	20	20	20	20	60	20	
35	Ammonium Acetate	CH ₃ COONH ₄		Satu	40	-	20	40	60	-	60	60	-	
36	Ammonium Bromide	NH ₄ Br		Satu	-	-	-	-	-	-	-	-	-	
37	Ammonium Carbonate	(NH ₄) ₂ CO ₃		Satu	40	20	40	40	60	20	60	60	20	
38	Ammonium Chloride	NH ₄ Cl		Satu	40	20	40	40	60	20	60	60	20	
39	Ammonium Copper				-	-	-	-	20	-	-	-	-	
40	Ammonium Difluoride	NH ₄ HF		Satu	40	-	-	40	60	-	60	60	-	
41	Ammonium Fluoride	NH ₄ F		20	40	-	-	40	60	-	60	60	-	
42	Ammonium Hydrogencarbonate	NH ₄ HCO ₃		40	-	-	-	-	20	-	-	-	-	
43	Ammonium Hydrogensulfite	NH ₄ HSO ₃		40	20	-	-	20	20	-	-	-	20	
44	Ammonium Hydroxide	NH ₄ OH		40	20	-	-	20	20	-	20	60	-	
45	Ammonium Magnesium Sulfate				-	-	-	-	20	20	20	20	20	
46	Ammonium Metaphosphate	NH ₄ PO ₃			40	-	-	40	60	-	60	60	-	
47	Ammonium Nitrate	NH ₄ NO ₃			40	-	40	40	60	-	60	60	-	
48	Ammonium Oxalate	(NH ₄) ₂ C ₂ O ₄ ·H ₂ O			-	-	-	-	-	-	-	20	-	
49	Ammonium Perchlorate	NH ₄ ClO ₄			-	-	-	-	-	-	-	20	-	
50	Ammonium Persulfate	(NH ₄) ₂ SO ₄		Satu	-	-	-	-	-	-	-	20	-	
51	Ammonium Phoshate	(NH ₄) ₃ PO ₄			40	-	-	40	60	-	60	60	-	
52	Ammonium Sulfate	(NH ₄) ₂ SO ₄		Satu	40	-	-	40	60	-	60	60	-	
53	Ammonium Sulfide	(NH ₄) ₂ S		Satu	-	-	-	-	-	-	-	60	-	
54	Ammonium Sulfite	(NH ₄) ₂ SO ₃		Satu	-	-	-	-	20	-	-	-	-	
55	Ammonium Thiocyanide	NH ₄ SCN			-	-	-	-	-	-	-	20	20	
56	Amyl Acetate	CH ₃ CO ₂ (CH ₂) ₄ CH ₃		Pure	-	-	-	-	-	-	-	40	20	
57	Amyl Alcohol	C ₅ H ₁₁ OH		Pure	40	-	-	40	60	-	60	60	-	
58	Amyl Chloride	CH ₃ (CH ₂) ₄ Cl		Pure	-	-	-	-	-	-	20	60	-	
59	Aniline	C ₆ H ₅ NH ₂		Pure	-	-	-	-	40	-	60	60	-	
60	Aniline Chloride			5	-	-	-	-	-	-	-	-	-	
61	Aniline Hydrochloride	C ₆ H ₅ NH ₂ ·HCl		Pure	40	-	-	40	-	-	60	60	-	
62	Animal Oil				40	20	20	40	60	20	60	60	20	
63	Anthraquinone				-	-	-	-	-	-	-	-	-	
64	Antimony Oxide	Sb ₂ O ₃		Satu	-	-	-	-	20	-	20	20	-	
65	Antimony Trichloride	SbCl ₃		Satu	40	20	-	40	60	20	40	40	-	
66	Aquaregia	3HCl+HNO ₃			-	-	-	-	-	-	-	60	-	
67	Arsenic Acid	H ₃ AsO ₄			40	-	-	40	60	-	60	60	-	
68	Asphalt				-	-	-	-	60	-	60	60	-	
69	Balium Sulfate	BaSO ₄		Satu	40	-	-	40	60	-	60	60	-	
70	Balium Sulfide	BaS		Satu	40	20	-	40	60	20	60	60	-	
71	Barium Carbonate	BaCO ₃			40	20	20	40	60	20	60	60	20	
72	Barium Chloride	BaCl ₂ ·2H ₂ O		Satu	40	20	-	40	60	20	60	60	-	
73	Barium Hydroxide	Ba(OH) ₂		Satu	40	-	-	40	60	-	60	60	-	
74	Barium Nitrate	Ba(NO ₃) ₂		Satu	40	-	-	40	60	-	60	60	-	
75	Barium Peroxide	BaO ₂			-	-	-	-	-	-	-	-	-	
76	Beer				40	20	40	40	60	20	60	60	20	
77	Beet Sugar Liquours				40	-	20	40	60	-	60	60	-	
78	Benzaldehyde	C ₆ H ₅ CHO		10	-	-	-	-	-	-	-	60	-	
79	Benzene	C ₆ H ₆		Pure	-	-	-	-	20	-	60	60	-	
80	Benzene Sulfonic Acid	C ₆ H ₅ SO ₃ H			-	-	-	-	-	-	40	40	-	
81	Benzene			Pure	-	-	-	-	40	-	60	60	-	
82	Benzoic Acid	C ₆ H ₅ CO ₂ Na		Pure	40	-	-	40	40	-	60	60	-	
83	Benzoyl Chloride	C ₆ H ₅ COCl			-	-	-	-	-	-	-	25	-	
84	Benzyl Alcohol	C ₆ H ₅ CH ₂ OH		Pure	-	-	-	-	60	-	60	60	-	
85	Benzyl Benzoate	C ₆ H ₅ CO ₂ CH ₂ -C ₆ H ₅		Satu	-	-	-	-	-	-	-	-	-	
86	Benzyl Chloride	C ₆ H ₅ CH ₂ Cl		Pure	-	-	-	-	-	-	-	60	20	
87	Bismuth Carbonate	BiCO ₃			-	-	-	-	-	-	-	-	20	
88	Black Liquore	Fe(CH ₃ COO) ₂		Satu	40	-	-	40	60	-	60	60	-	
89	Bleaching Liquor	Ca(ClO) ₂		5	40	-	-	40	-	-	40	60	-	
90	Bleaching Liquor	Ca(ClO) ₂		12	20	-	-	20	-	-	20	60	-	
91	Boric Acid	H ₃ BO ₃		Satu	40	20	40	40	60	20	60	60	20	
92	Brine(Sodium Chloride)				40	-	-	40	60	-	60	60	-	
93	Bromine Vapor			25	20	-	-	20	-	-	60	60	-	
94	Bromine Water			Satu	20	-	-	20	-	-	40	60	-	
95	Butadien	CH ₂ =CH-CH=CH ₂		Gas	40	-	-	40	-	-	60	60	-	
96	Butane	CH ₃ (CH ₂) ₂ CH ₃		Gas	40	-	-	40	60	-	60	60	-	
97	Buthyl Acrylate	CH ₂ =CHCO ₂ (CH ₂) ₃ CH ₃			-	-	-	-	-	-	-	40	-	
98	Butyl Acetate	CH ₃ CO ₂ C ₄ H ₉		Pure	-	-	-	-	-	-	-	40	-	
99	Butyl Alcohol	CH ₃ OH			40	-	-	40	40	-	40	60	-	
100	Butyl Amine	CH ₃ (CH ₂) ₃ NH ₂		Satu	-	-	-	-	-	-	-	20	-	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	Ti	CE
1	60	1	1	60	20	60	20	60
1	80	1	60	80	0	0	0	60
1	20	0	20	20	1	1	1	60
60	80	120	40	60	60	20	20	60
40	60	120	20	60	40	20	20	60
40	40	120	20	1	40	20	20	60
40	20	40	20	1	40	20	20	60
1	1	1	1	0	1	20	20	60
1	1	20	1	1	20	20	20	60
1	40	1	1	40	20	20	20	60
60	80	120	100	100	20	20	20	60
0	20	40	0	20	0	0	0	60
0	40	20	1	80	0	0	0	60
1	20	1	1	1	20	20	20	60
0	0	0	60	0	0	0	0	60
0	40	40	1	1	1	20	20	60
1	80	80	100	1	20	20	20	60
20	20	40	1	60	20	20	20	60
1	0	40	0	0	0	0	0	60
60	100	60	80	80	1	20	20	60
1	1	20	40	1	0	0	0	60
1	60	80	80	1	20	20	20	60
40	40	120	80	80	20	20	20	60
60	80	120	80	60	0	0	0	60
1	100	120	100	80	40	0	0	60
60	100	60	100	100	1	20	1	60
60	80	120	100	80	1	1	20	1
60	100	120	100	100	1	1	20	60
60	80	100	100	100	1	1	20	60
60	100	120	60	60	100	20	20	60
60	100	120	100	100	0	0	0	60
60	100	120	1	80	20	20	20	60
1	40	120	1	60	20	20	20	60
60	100	120	20	100	20	20	1	60
60	60	120	100	100	20	0	0	60
0	0	0	20	0	1	20	20	60
60	100	120	100	100	120	20	0	60
60	100	80	100	100	40	20	20	60
0	20	0	20	20	0	0	0	60
60	80	120	100	100	1	0	0	60
40	80	120	60	60	1	1	0	60
0	20	0	20	20	20	0	0	60
20	20	0	20	1	20	20	20	60
60	100	120	20	60	0	0	0	60
0	20	20	20	20	20	20	20	60
60	100	120	80	80	0	0	0	60
60	100	120	80	80	40	1	1	60
0	20	20	0	20	1	1	0	60
20	0	20	0	0	1	1	20	60
20	20	20	0	0	1	1	0	60
60	100	120	80	80	1	1	20	60
60	100	120	80	80	1	1	20	60
20	100	120	0	0	1	0	0	60
0	20	0	20	0	0	0	0	60
20	20	20	0	0	20	20	20	60
1	1	40	1	20	40	20	20	60
60	80	80	80	80	0	0	0	60
1	1	80	20	1	20	1	20	60
1	40	60	60	20	20	1	20	60
1	0	0	0	0	1	0	0	60
40	0	60	60	1	0	0	0	60
60	100	120	60	60	20	20	20	60
20	0	0	0	0	1	1	20	60
1	20	20	20	0	0	1	0	60
60	80	40	80	20	1	20	20	60
1	1	100	1	40	1	1	20	60
40	60	100	100	80	1	1	0	60
1	60	120	60	1	0	0	0	60
60	100	120	100	80	1	1	20	60
60	100	120	100	60	1	20	1	60
60	100	120	120	80	20	20	20	60
60	100	120	120	80	1	20	20	60
60	80	120	120	100	1	1	20	60
60	100	120	120	100	1	1	0	60
0	0	0	0	0	1	0	0	60
60	100	120	80	80	120	20	20	60
60	100	120	80	60	20	0	0	60
60	60	60	1	1	1	1	20	60
1	20	60	80	1	1	1	20	60
1	1	40	60	0	0	0	0	60
1	40	60	80	1	0	0	0	60
60	40	120	100	80	1	1	20	60
0	1	25	1	0	1	1	0	60
0	60	80	100	40	0	0	0	60
0	0	0	0	20	0	0	0	60
0	20	120	0	0	20	20	20	60
20	20	0	0	0	20	20	20	60
60	80	120	100	80	0	0	0	60
60	0	120	40	40	0	0	0	60
60	0	120	20	20	0	0	0	60
60	100	120	100	80	120	20	20	60
60	100	120	100	80	1	0	0	60
20	1	120	60	1	0	0	0	60
20	1	120	40	1	1	0	0	60
60	0	80	60	1	0	0	0	60
60	80	80	80	1	0	0	0	60
1	1	40	1	40	0	0	0	60
1	1	40	1	20	0	0	0	60
60	80	80	40	80	0	0	0	60
1	1	20	1	1	0	0	0	60

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1 Not suitable

0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
101	Butyl Bromide	CH ₃ (CH ₂) ₃ Br			-	-	-	-	-	-	-	60	-	
102	Butyl Carbitol	CH ₃ CH ₂ OC ₆ H ₄ CH ₂ CH ₂ OH		Pure	-	-	-	-	-	-	-	0	-	
103	Butyl Cellosolve	C ₄ H ₉ O(CH ₂) ₂ OH			-	-	-	-	-	-	60	60	-	
104	Butyl Chloride	CH ₃ (CH ₂) ₃ Cl			-	-	-	-	-	-	-	60	-	
105	Butyl Diol				20	-	20	20	-	-	60	60	-	
106	Butyl Ether	[CH ₃ (CH ₂) ₃] ₂ O			-	-	-	-	-	-	-	40	-	
107	Butyl Mercaptan	CH ₃ (CH ₂) ₃ SH		Pure	-	-	-	-	-	-	-	60	-	
108	Butyl Phenol	C ₆ H ₄ (OH)(C ₄ H ₉)			-	-	-	-	-	-	-	60	-	
109	Butyl Phtalate	C ₈ H ₄ (COOC ₂ H ₅)(COOH)			-	-	-	-	40	-	40	40	-	
110	Butyl Stearate			Pure	-	-	-	-	-	-	60	60	-	
111	Butylene	CH ₃ CH ₂ CH=CH ₂			-	-	-	-	-	-	60	60	-	
112	Butyric Acid	CH ₃ CH ₂ CH ₂ CO ₂ H			-	-	-	-	20	-	20	60	-	
113	Caffein Citrate				-	-	-	-	-	-	-	60	-	
114	Calcium Acetate	Ca(CH ₃ COO) ₂		Satu	40	-	-	40	60	-	60	60	-	
115	Calcium Bisulfide CaS			Satu	40	-	-	40	60	-	60	60	-	
116	Calcium Bisulfite	Ca(HSO ₃) ₂			40	-	-	40	60	-	60	60	-	
117	Calcium Bromide	CaBr ₂			40	-	-	40	60	-	60	60	-	
118	Calcium Carbonate	CaCO ₃			40	-	-	40	60	-	60	60	-	
119	Calcium Chlorate	Ca(ClO ₃) ₂ ·2H ₂ O		Satu	40	-	-	40	60	-	60	60	-	
120	Calcium Chloride	CaCl ₂		Satu	40	20	20	40	60	20	60	60	20	
121	Calcium Hydroxide	Ca(OH) ₂		50	40	20	-	40	60	20	60	60	-	
122	Calcium Nitrate	Ca(NO ₃) ₂		Satu	40	-	-	40	60	-	60	60	-	
123	Calcium Sulfate	CaSO ₄			40	-	-	40	60	-	60	60	-	
124	Calcium Sulfide	CaS			40	-	-	40	60	-	60	60	-	
125	Calsium Disulfide	Ca(HS ₂) ₂			20	-	-	20	-	-	-	-	-	
126	Calsium Hydrosulfate	CaHSO ₄			-	-	-	-	-	-	-	20	20	
127	Calsium Oxide(Slaked Lime)	CaO			-	-	-	-	20	20	20	20	-	
128	Cane Sugar Liquor				40	-	-	40	60	0	60	60	-	
129	Caprylic Acid	CH ₃ (CH ₂) ₆ COOH		Pure	-	-	-	-	-	-	-	60	-	
130	Carbitol	HO(CO ₂) ₂ C ₆ H ₄ O(CH ₂) ₂ OC ₂ H ₅			40	-	-	40	-	-	-	-	-	
131	Carbon Dichloride	CCl ₂			-	-	-	-	-	-	-	-	20	
132	Carbon Dioxide	CO ₂			40	20	20	40	60	20	60	60	20	
133	Carbon Disulfide	CS ₂		Pure	-	-	-	-	-	-	20	20	20	
134	Carbon Monoxide	CO		Gas	40	-	-	40	60	-	60	60	-	
135	Carbon Tetrachloride	CCl ₄			-	-	-	-	20	-	20	60	-	
136	Carbonic Acid (Phenol)	H ₂ CO ₃			40	20	-	40	60	20	60	60	-	
137	Casein				-	-	-	-	-	-	60	60	-	
138	Castor Oil			Pure	40	20	20	40	60	20	60	60	20	
139	Caustic Potash	KOH		25	-	-	-	40	-	-	-	60	-	
140	Cellosolve	C ₆ H ₅ O(CH ₂) ₂ OH			-	-	-	-	-	-	-	60	-	
141	Chloramine	CH ₃ -C ₆ H ₄ SO ₂ -NClNa(H ₂ O) ₃			-	-	-	-	-	-	-	-	-	
142	Chloric Acid	HClO ₃		20	-	-	-	-	-	-	-	60	-	
143	Chlorinated Solvents				-	-	-	-	-	-	-	-	-	
144	Chlorine Dioxide	ClO ₂		0.3	-	-	-	-	-	-	-	60	-	
145	Chlorine Dioxide	ClO ₂		1	-	-	-	-	-	-	-	60	-	
146	Chlorine Gas (Dry)	Cl ₂			20	-	-	20	-	-	20	60	-	
147	Chlorine Gas (Wet)	Cl ₂			-	-	-	-	-	-	-	60	-	
148	Chlorine Water	Cl ₂ Aq		0.4	-	-	-	-	-	-	-	60	-	
149	Chloro Acetic Acid				20	-	-	20	-	-	20	20	-	
150	Chloro Benzene	C ₆ H ₅ Cl		Pure	-	-	-	-	20	-	20	60	-	
151	Chloro Benzyl Chloride				-	-	-	-	-	-	-	20	-	
152	Chloro Sulfonic Acid	SO ₂ Cl(OH)		Pure	-	-	-	-	-	-	-	-	-	
153	Chloroform	CHCl ₃		Pure	-	-	-	-	-	-	20	60	-	
154	Chlorosene				-	-	-	-	-	-	-	-	-	
155	Chlorosulfuric Acid	HSO ₃ Cl			-	-	-	-	-	-	-	-	-	
156	Chromic Acid	H ₂ CrO ₄		10	40	-	-	40	-	-	60	60	-	
157	Chromic Acid	H ₂ CrO ₄		20	20	-	-	20	-	-	60	60	-	
158	Chromic Acid	H ₂ CrO ₄		40	-	-	-	-	-	-	-	60	-	
159	Chromic Acid	H ₂ CrO ₄		50	-	-	-	-	-	-	-	50	-	
160	Chromium Alum	KCr(SO ₄) ₂			20	-	-	20	60	-	60	60	-	
161	Citric Acid	C ₆ H ₈ O ₇		10	40	20	40	40	60	20	60	60	20	
162	Citric Acid	(CH ₂ COOH) ₂ C(OH)COOH	1.33	50	20	20	20	20	20	20	20	60	20	
163	Coconut Oil				40	-	-	40	60	-	60	60	-	
164	Coke Oven Gas				-	-	-	-	-	-	60	60	-	
165	Colophonium				-	-	-	-	20	20	20	20	-	
166	Copper Acetate	Cu(CH ₃ COO) ₂ ·H ₂ O		Satu	20	20	20	20	20	20	60	60	20	
167	Copper Borofluiride	CuBF ₄			20	-	-	20	20	-	20	60	-	
168	Copper Carbonate	CuCO ₃			20	-	20	20	20	-	20	60	-	
169	Copper Chloride	CuCl ₂			40	-	-	40	60	-	60	60	-	
170	Copper Cyanide	CuCN			20	-	20	20	20	-	20	60	-	
171	Copper Fluoride	CuF		Satu	20	-	-	20	20	-	20	60	-	
172	Copper Sulfate	CuSO ₄		Satu	40	20	40	40	60	20	60	60	20	
173	Corn Oil				20	20	20	20	60	20	60	60	20	
174	Corn Syroup				40	-	-	40	60	-	60	60	-	
175	Cottonseed Oil				-	-	-	-	60	20	60	60	20	
176	Cresol	C ₆ H ₄ (CH ₃)OH		Pure	-	-	-	-	-	-	60	60	20	
177	Cresote				-	-	-	-	-	-	-	-	-	
178	Croton Aldehyde	CH ₃ -CH=CH-CHO			-	-	-	-	-	-	20	60	-	
179	Crude Oil				20	-	-	20	-	-	20	60	20	
180	Cryolite	NaAlF ₆			-	-	-	-	-	-	-	60	-	
181	Cupric Fluoride	CuF ₂ ·H ₂ O		Satu	40	-	-	40	60	-	60	60	-	
182	Cupric(Copper) Nitrate	Cu(NO ₃) ₂			40	20	40	40	60	20	60	60	20	
183	Cuprous Chloride	CuCl			40	-	-	40	60	-	60	60	-	
184	Cyclohexane	C ₆ H ₁₂			-	-	-	-	-	-	40	60	-	
185	Cyclohexanol	C ₆ H ₁₁ OH		Pure	-	-	-	-	-	-	-	-	-	
186	Cyclohexanone	C ₆ H ₁₀ O		Pure	-	-	-	-	-	-	40	60	20	
187	Deazo Solt				-	-	-	-	20	-	20	20	20	
188	Decaline	C ₁₀ H ₁₈		Pure	-	-	-	-	-	-	20	60	-	
189	Decane	CH ₃ (CH ₂) ₈ CH ₃		Pure	-	-	-	-	-	-	-	-	-	
190	Dextrine			Satu	40	20	20	40	60	20	60	60	20	
191	Diacetone			Pure	-	-	-	-	-	-	-	-	-	
192	Diacetone Alcohol	CH ₃ COCH ₂ C(OH)(OH) ₂			-	-	-	-	-	20	-	20	20	
193	Diacetone Alcohol	(CH ₃) ₂ C(OH)CH ₂ COCH ₃		Pure	-	-	-	-	-	-	-	40	-	
194	Dibenzyl Ether	C ₆ H ₅ CH ₂ OCH ₂ C ₆ H ₅		Pure	-	-	-	-	-	-	-	40	-	
195	Dibutyl Amine	(C ₄ H ₉) ₂ NH		Pure	-	-	-	-	-	-	-	20	-	
196	Dibutyl Ether	[CH ₃ (CH ₂) ₃] ₂ O			-	-	-	-	-	-	-	40	-	
197	Dibutyl Phthalate	C ₈ H ₇ (COOH)(H ₃) ₂		Pure	-	-	-	-	20	20	20	40	20	
198	Dibutyl Sebacate	H ₂ C ₄ OOC-(CH ₂) ₆ -COOC ₄ -H ₉			-	-	-	-	-	-	-	40	-	
199	Dichlorethane	C ₂ H ₄ Cl ₂			-	-	-	-	-	-	-	-	-	
200	Dichloro Benzen	C ₆ H ₄ Cl ₂		Pure	-	-	-	-	20	-	20	60	20	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	TI	CE
0	0	80	0	0	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	60	80	0	1	0	0	60
0	0	80	0	0	0	0	0	60
20	0	80	120	60	60	0	0	60
1	1	40	1	1	0	0	0	60
0	0	80	0	0	0	0	0	60
0	0	60	0	0	0	0	0	60
0	60	40	40	20	0	0	0	60
0	0	80	60	1	0	0	0	60
0	0	80	80	0	0	0	0	60
1	100	120	20	20	0	0	0	60
0	0	80	0	0	0	0	0	60
60	80	120	100	80	0	0	0	60
60	100	100	80	0	0	0	0	60
40	100	100	80	40	0	0	0	60
60	60	100	60	60	0	0	0	60
60	100	80	120	60	1	1	1	60
60	100	120	60	60	1	1	20	60
60	100	120	100	80	20	20	20	60
60	100	120	100	80	1	20	1	60
60	100	120	100	80	1	1	20	60
60	100	120	100	80	0	0	0	60
20	1	1	20	20	1	0	20	60
20	20	20	0	0	20	20	20	60
0	20	20	20	20	20	20	0	60
60	100	120	100	80	0	0	0	60
0	0	120	0	0	20	0	0	60
40	0	0	40	20	0	0	0	60
0	0	0	0	0	20	20	20	60
60	80	120	100	100	20	20	20	60
1	1	20	20	1	20	20	20	60
60	100	100	80	60	0	0	0	60
1	20	60	20	1	1	1	20	60
60	100	120	100	80	1	20	20	60
0	0	120	80	80	0	0	0	60
60	100	120	60	60	20	20	20	60
60	40	60	1	100	60	0	0	60
0	40	60	1	20	0	0	0	60
0	0	0	0	0	0	0	0	60
60	0	80	0	0	1	20	0	60
0	0	0	20	1	0	0	0	60
20	1	60	1	0	1	0	0	60
1	1	60	1	0	1	0	0	60
60	1	120	20	20	1	1	1	60
20	1	120	1	1	1	0	0	60
40	1	120	1	20	1	0	0	60
20	1	20	20	1	1	20	20	60
1	20	60	20	1	1	0	0	60
0	1	1	20	1	20	20	20	60
1	1	1	1	1	1	0	0	60
1	1	60	20	1	20	0	20	60
0	0	0	0	0	20	0	0	60
1	1	1	1	1	1	1	1	60
40	1	120	80	20	1	1	20	60
20	1	120	60	20	1	1	20	60
20	1	100	1	1	1	1	20	60
1	1	50	1	1	1	1	20	60
20	60	120	100	100	0	0	0	60
60	100	100	100	100	60	20	20	60
40	40	80	20	20	20	20	20	60
60	80	120	60	40	0	0	0	60
0	0	120	60	40	0	0	0	60
0	20	20	20	20	20	20	0	60
20	20	120	60	40	40	20	1	60
20	20	120	20	100	0	0	0	60
20	20	120	20	20	40	1	1	60
60	100	120	100	100	1	1	20	60
20	100	100	20	20	20	0	20	60
60	60	120	20	20	0	0	0	60
60	100	120	100	100	60	20	20	60
20	60	120	60	40	20	20	20	60
60	100	120	100	80	0	0	0	60
0	100	120	100	60	20	20	20	60
1	1	80	60	1	20	20	20	60
1	0	0	20	1	1	1	0	60
0	0	80	20	20	0	0	0	60
60	0	120	20	1	20	20	20	60
60	80	120	0	0	0	0	0	60
60	80	120	60	60	0	0	0	60
60	80	120	100	80	120	20	0	60
60	80	120	100	100	0	0	0	60
1	1	80	40	1	0	0	0	60
1	40	80	40	20	1	1	1	1
1	1	80	40	1	20	20	20	60
0	20	20	20	0	20	20	20	60
0	1	80	20	1	0	0	0	60
20	20	80	20	1	1	1	1	1
60	100	120	100	80	20	20	20	60
1	0	0	0	0	0	0	0	60
0	20	20	1	20	20	20	20	60
1	40	40	1	20	0	0	0	60
0	0	40	1	1	0	0	0	60
0	0	20	0	0	0	0	0	60
0	0	40	1	1	0	0	0	60
0	20	40	20	40	20	20	20	60
0	0	40	1	20	0	0	0	60
0	1	0	1	0	1	1	20	60
0	20	60	20	1	20	20	20	60

Chemical Resistance Chart for IWAKI Metering Pumps

Explanation of footnotes

* : PVC braided hose is not recommended.

(**) : "BVC" type (check valve) is to be used.

1 Not suitable

0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
201	Dichlorobenzyl Chloride	C ₆ H ₄ CHCL ₂			-	-	-	-	-	-	-	20	-	
202	Dichloroethylene	CH ₂ =CCl ₂		Pure	-	-	-	-	-	-	-	20	60	
203	Dichloroisopropethyl	Cl-CH ₂ -CH-O-CH-CH ₂ -Cl		Pure	-	-	-	-	-	-	-	-	40	
204	Diesel Fuel				20	20	20	20	20	20	20	60	20	
205	Diethylamine	(C ₂ H ₅) ₂ NH		Pure	-	-	-	-	20	-	20	20	-	
206	Diethylbenzene				-	-	-	-	-	-	-	-	20	
207	Diethylcellosolve	CH ₃ CH ₂ (OC ₂ H ₅) ₂			-	-	-	-	-	-	-	-	20	
208	Diethylene Glycol				20	-	-	20	20	-	20	20	20	
209	Diethylether	C ₂ H ₅ OC ₂ H ₅		Pure	-	-	-	-	-	-	-	40	-	
210	Dietylene Triamine	H ₂ N(CH ₂ CH ₂ NH) ₂ H			-	-	-	-	-	-	20	40	20	
211	Diglycolic Acid	(HO ₂ CCH ₂) ₂ O+H ₂ O		Satu	20	-	-	20	20	-	20	20	-	
212	Diisobtylene	C ₈ H ₁₆		Pure	-	-	-	-	-	-	40	60	20	
213	Diisobuty Ketone	[(CH ₃) ₂ CHCH ₂] ₂ CO		Pure	-	-	-	-	-	-	-	-	20	
214	Diisopropyl Ketone	[(CH ₃) ₂ CH ₂] ₂ CO		Pure	-	-	-	-	-	-	-	-	-	
215	Dimethyl Amine	(CH ₃) ₂ NH			-	-	-	-	20	-	20	20	-	
216	Dimethyl Aniline	C ₈ H ₉ N			-	-	-	-	-	-	-	20	20	
217	Dimethyl Formamide	HCON(CH ₃) ₂			-	-	-	-	-	-	-	-	-	
218	Dimethyl Phthalate	C ₆ H ₄ (COOCH ₃) ₂			-	-	-	-	-	-	20	20	-	
219	Dimethyl Sulfate	(CH ₃) ₂ SO ₄			-	-	-	-	-	-	-	-	20	
220	Dimethyl Sulfoxide	(CH ₃) ₂ SO			-	-	-	-	-	-	-	-	-	
221	Dimetry Acetaminade	CH ₃ CON(CH ₃) ₂			-	-	-	-	-	-	-	-	-	
222	Dioctyl Phthalate	C ₈ H ₁₇ (COOH) ₂			-	-	-	-	-	-	20	40	-	
223	Dioxane	C ₄ H ₈ O ₂		Pure	-	-	-	-	-	-	-	-	-	
224	Dioxolane	C ₃ H ₆ O ₂			-	-	-	-	-	-	-	-	-	
225	Diphenyl	C ₆ H ₅ -C ₆ H ₅			-	-	-	-	-	-	-	-	20	
226	Diphenyl Oxide	C ₁₂ H ₈ O		Satu	-	-	-	-	-	-	-	-	-	
227	Disodium Phosphate	Na ₂ HPO ₄			-	-	-	-	-	-	-	60	-	
228	Epichlorohydrine	C ₃ H ₅ OCl		Pure	-	-	-	-	-	-	-	-	-	
229	Ethanolamine	H ₂ NCH ₂ CH ₂ OH		Pure	-	-	-	-	20	20	-	-	20	
230	Ether	C ₂ H ₅ O			20	-	-	20	-	-	-	-	-	
231	Ethyl Acetate	CH ₃ COOC ₂ H ₅			-	-	-	-	-	-	-	20	-	
232	Ethyl Acetoacetate	CH ₃ CO-CH ₂ COOC ₂ H ₅		Pure	-	-	-	-	-	-	-	40	-	
233	Ethyl Acrylate	H ₂ CCH-COOC ₂ H ₅		Pure	-	-	-	-	-	-	-	40	-	
234	Ethyl Alcohol	C ₂ H ₅ OH			40	40	30	40	60	80	60	60	30	
235	Ethyl Benzene	C ₆ H ₅ -C ₂ H ₅			-	-	-	-	-	-	20	60	-	
236	Ethyl Chloride	C ₂ H ₅ Cl			-	-	-	-	-	-	60	60	-	
237	Ethyl Ether	(C ₂ H ₅) ₂ O		Pure	-	-	-	-	-	-	-	40	20	
238	Ethyl Formate	HCOOC ₂ H ₅		Pure	-	-	-	-	-	-	-	-	-	
239	Ethyl Hexanol	CH ₃ (CH ₂) ₅ CH ₂ (C ₂ H ₅)CH ₂ OH			-	-	-	-	20	-	20	60	-	
240	Ethyl Mercaptan	C ₂ H ₅ -SH		Pure	-	-	-	-	-	-	-	-	-	
241	Ethyl Oxalate	(CO ₂ C ₂ H ₃) ₂			-	-	-	-	-	-	-	-	-	
242	Ethylalcohol	C ₂ H ₅ OH		Pure	40	-	-	40	60	-	60	60	-	
243	Ethylen Chrohydrin	ClCH ₂ -CH ₂ OH		Pure	-	-	-	-	-	-	-	40	-	
244	Ethylene Acrylate				-	-	-	-	-	-	-	20	20	
245	Ethylene Bromide	CH ₂ Br-CH ₂ Br			-	-	-	-	-	-	-	60	-	
246	Ethylene Chloride	ClCH ₂ CH ₂ Cl			-	-	-	-	-	-	20	60	-	
247	Ethylene Diamine	NH ₂ CH ₂ CH ₂ NH ₂		Pure	-	-	-	-	-	-	-	20	-	
248	Ethylene Dibromide	(CH ₂ Br) ₂			-	-	-	-	-	-	20	60	20	
249	Ethylene Glycol	CH ₂ OH-CH ₂ OH		Pure	40	20	-	40	60	20	60	60	-	
250	Ethylene Oxido	(CH ₂) ₂ O		Pure	-	-	-	-	-	-	-	40	20	
251	Ethylene Trichloride	C ₂ HCl ₃			-	-	-	-	-	-	-	20	20	
252	Fatty Acid	RCOOH			20	-	-	20	20	-	20	60	20	
253	Ferous Nitrate	Fe(NO ₃) ₂		Satu	40	-	-	40	60	-	60	60	-	
254	Ferric Chloride	FeCl ₃			40	-	-	40	60	-	60	60	-	
255	Ferric Hydroxide	Fe(OH) ₃		Satu	40	-	-	40	60	-	60	60	-	
256	Ferric Sulfate	Fe ₂ (SO ₄) ₃			-	-	-	-	-	-	-	-	-	
257	Ferric(Iron) Nitrate	Fe(NO ₃) ₃			40	20	20	40	60	20	60	60	20	
258	Ferrous Chloride	FeCl ₂			-	-	-	-	-	-	-	-	-	
259	Ferrous Sulfate	FeSO ₄			-	-	-	-	-	-	-	-	-	
260	Ferrous(Iron) Chloride	FeCl ₂			40	-	-	40	60	-	60	60	-	
261	Ferrous(Iron) Hydroxide	Fe(OH) ₂		Satu	40	-	20	40	60	-	60	60	-	
262	Ferrous(Iron) Sulfate	FeSO ₄			40	-	-	40	60	-	60	60	-	
263	Fluorine Gas	F ₂			-	20	-	-	-	-	-	-	-	
264	Fluoroboric Acid (Hydrogen Terafluoroborate)	HBF ₄		Pure	40	-	-	40	60	-	60	60	-	
265	Fluosilicic Acid	H ₂ SiF ₆		50	40	-	-	40	60	-	60	60	-	
266	Formaldehyde	HCHO		35	40	20	20	40	60	20	60	60	20	
267	Formalin	HCHO		40	40	20	20	40	60	20	60	60	20	
268	Formic Acid	HCOOH		90	-	20	-	-	-	20	-	60	-	
269	Freon-11	CCl ₃ F			20	-	-	20	-	-	20	60	20	
270	Freon-113	CClF ₂ -CClF ₂			20	-	-	20	-	-	20	60	20	
271	Freon-114	CClF ₂ -CCLF ₂			20	-	-	20	-	-	40	60	0	
272	Freon-12	CCl ₂ F ₂			20	20	20	20	-	-	20	60	20	
273	Freon-21	CHCl ₂ F			-	-	-	-	-	-	-	60	20	
274	Freon-22	CHClF ₂			-	-	-	-	-	-	-	60	-	
275	Fructose (Fruit Suger)				40	-	-	40	-	-	60	60	-	
276	Fuel Oil				-	-	-	-	-	-	-	-	-	
277	Fuming Sulfuric Acid	H ₂ SO ₄ +SO ₃			-	-	-	-	-	-	-	-	-	
278	Furan				-	-	-	-	-	-	-	-	-	
279	Furfural	C ₅ H ₄ O ₂		Pure	-	-	-	-	-	-	40	60	-	
280	Furfuryl Alcohol	C ₅ H ₆ O ₂		Pure	-	-	-	-	-	-	-	-	-	
281	Furic Sulfide	Fe ₂ S			40	-	-	40	60	-	60	60	-	
282	Gallic Acid	C ₇ H ₆ O ₅ -H ₂ O			-	-	-	-	-	-	20	40	-	
283	Gasoline				-	-	-	-	-	-	60	60	20	
284	Gasoline-Sour				20	-	-	20	-	-	20	60	-	
285	Gelatin				40	20	20	40	60	20	60	60	20	
286	Gin				40	-	-	40	60	-	60	60	-	
287	Glacial Acetic Acid				-	-	-	-	20	-	20	60	-	
288	Glucose	C ₆ H ₁₂ O ₆			40	-	-	40	60	-	60	60	-	
289	Glue				-	-	-	-	-	-	60	60	-	
290	Glycerine	C ₃ H ₈ (OH) ₃	1.46	100	-	-	-	-	-	-	-	-	-	
291	Glycerol	C ₃ H ₈ (OH) ₃			40	20	40	40	60	20	60	60	20	
292	Glycolic Acid	CH ₂ (OH)COOH		Satu	-	-	-	-	20	-	20	40	-	
293	Grape Suger	C ₆ H ₁₂ O ₆			40	-	-	40	60	-	60	60	-	
294	Heavy Oil				-	-	-	-	-	-	-	-	-	
295	Heptane	CH ₃ (CH ₂) ₅ CH ₃			40	-	-	40	40	-	60	60	20	
296	Hexane	C ₆ H ₁₄			20	-	-	20	20	-	20	60	20	
297	Hexyl Alcohol(Hexanol)	CH ₃ (CH ₂) ₅ OH			40	20	20	40	20	20	60	60	20	
298	Hydrazine	H ₂ N-NH ₂		Pure	-	-	-	-	-	-	-	-	-	
299	Hydrobromic Acid	HBr			40	-	-	40	60	-	60	60	-	
300	Hydrocfluoric Acid	HF		50	20	20	-	20	-	-	60	60	-	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	TI	CE
0	20	20	1	20	0	0	0	60
0	1	60	20	1	20	20	20	60
0	0	40	0	0	0	0	0	60
20	20	120	20	20	120	20	20	60
1	40	20	20	20	1	1	20	60
0	1	0	20	1	20	20	20	60
0	0	0	0	1	20	20	20	60
20	20	20	20	0	20	20	20	60
1	1	40	1	1	0	0	0	60
0	0	40	20	20	20	20	20	60
40	20	20	20	20	0	0	0	60
0	0	80	40	20	20	20	20	60
0	0	1	1	1	20	20	20	60
0	0	1	1	20	0	0	0	60
1	40	20	20	60	20	1	1	60
0	0	20	1	1	20	20	20	60
1	40	1	1	20	1	0	0	60
0	0	20	20	20	0	0	0	60
0	0	0	1	0	20	20	20	60
0	0	1	0	0	0	0	0	60
1	1	1	0	0	0	0	0	60
0	0	40	20	20	0	0	0	60
1	20	1	1	1	0	0	0	60
0	0	1	1	1	0	0	0	60
0	0	0	0	0	20	20	20	60
0	0	0	20	1	0	0	0	60
60	0	120	0	0	0	0	0	60
1	1	1	1	1	0	0	0	60
0	20	1	20	40	20	20	20	60
20	0	0	20	0	1	1	20	60
1	20	20	1	1	1	1	1	60
0	0	40	1	40	0	0	0	60
0	0	40	1	20	0	0	0	60
60	80	80	80	80	30	80	30	60
0	0	60	20	1	0	0	0	60
1	1	60	80	40	20	1	20	60
1	1	40	1	1	20	20	0	60
0	0	0	0	0	20	0	0	60
0	40	100	20	1	0	0	0	60
0	0	0	60	40	0	0	0	60
0	0	0	1	20	0	0	0	60
60	80	80	80	80	0	0	0	60
0	20	40	1	20	0	0	0	60
1	0	20	1	1	20	20	20	60
0	0	80	1	10	0	0	0	60
1	1	80	20	1	1	20	20	60
0	0	20	0	20	0	0	0	60
0	0	80	20	0	20	20	1	60
60	80	80	100	100	1	20	20	60
1	0	40	1	1	20	20	20	60
1	1	20	1	1	20	20	20	60
60	60	120	20	1	20	20	0	60
60	100	120	100	80	0	0	0	60
60	100	120	100	100	1	0	0	60
60	80	120	80	80	0	0	0	60
0	0	0	0	0	0	0	0	60
60	100	120	100	80	20	20	1	60
0	0	0	0	0	0	0	0	60
0	0	0	0	0	0	0	0	60
40	100	120	100	100	1	1	20	60
60	80	120	100	80	20	1	1	60
60	100	120	100	100	1	1	20	60
60	1	120	60	60	1	20	1	1
60	80	120	80	80	1	0	0	60
60	80	120	100	100	1	0	0	60
40	80	60	80	80	20	20	20	60
40	80	60	80	80	20	20	20	60
40	40	80	1	100	1	20	100	60
60	0	120	20	1	20	20	20	60
20	0	120	20	1	20	20	20	60
20	0	120	40	1	0	0	0	60
60	0	120	20	20	20	20	20	60
1	0	120	1	1	20	20	20	60
1	0	120	1	20	0	0	0	60
60	0	120	100	80	0	0	0	60
0	0	0	0	0	0	0	0	60
1	1	1	1	1	60	0	0	60
0	0	1	1	1	20	0	0	60
0	1	100	40	100	0	0	0	60
0	20	1	1	1	20	0	0	60
60	100	120	80	80	0	0	0	60
0	0	40	20	20	0	0	0	60
1	1	80	80	1	20	20	20	60
60	1	120	20	1	0	0	0	60
60	100	120	100	80	20	20	20	60
60	80	120	100	80	0	0	0	60
1	20	80	20	1	1	0	0	60
60	100	120	80	80	0	0	0	60
0	0	120	100	80	100	0	0	60
0	0	0	0	0	0	0	0	60
60	100	120	80	80	40	20	20	60
0	100	40	20	20	0	0	0	60
60	100	120	80	80	0	0	0	60
1	1	0	1	1	120	0	0	60
60	40	80	60	1	20	20	20	60
40	40	80	20	1	20	20	20	60
60	20	80	120	40	20	20	20	60
1	1	1	1	1	20	1	20	60
60	100	120	80	80	0	0	0	60
20	1	120	100	60	1	20	20	60

Chemical Resistance Chart for IWAKI Metering Pumps

Explanation of footnotes

* : PVC braided hose is not recommended.

(**): "BVC" type (check valve) is to be used.

1 Not suitable

0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
301	Hydrochloric Acid	HCl		15	40	20	-	40	60	20	60	60	-	
302	Hydrochloric Acid	HCl		25	40	20	-	40	60	20	60	60	-	
303	Hydrochloric Acid	HCl		35	40	20	-	40	40	20	40	60	-	
304	Hydrochloric Acid	HCl		38	40	-	-	40	40	-	40	60	-	
305	Hydrocyanic Acid(Prussic Acid)	HCN		10	20	-	-	20	20	-	20	60	-	
306	Hydrofluoric Acid	HF		Dilute	40	20	-	40	-	-	60	60	-	
307	Hydrofluoric Acid	HF		30	40	20	-	40	-	-	60	60	-	
308	Hydrofluoric Acid	HF		40	20	20	-	20	-	-	60	60	-	
309	Hydrogen	H ₂			40	-	-	40	60	-	60	60	-	
310	Hydrogen Fluoride(Anhydrous)	HF			-	-	-	-	-	-	-	60	-	
311	Hydrogen Peroxide	H ₂ O ₂		5	40	-	40	40	60	-	60	60	-	
312	Hydrogen Peroxide	H ₂ O ₂		20	40	-	-	40	60	-	60	60	-	
313	Hydrogen Peroxide	H ₂ O ₂		30	20	-	-	20	60	-	60	60	-	
314	Hydrogen Peroxide	H ₂ O ₂		50	20	-	-	20	-	-	40	60	-	
315	Hydrogen Peroxide	H ₂ O ₂		90	-	-	-	-	-	-	20	60	-	
316	Hydrogen Sulfide(Aqueous)	H ₂ S			40	-	-	40	60	-	60	60	-	
317	Hydrogen Sulfide(Dry)	H ₂ S			40	-	40	40	60	-	60	60	-	
318	Hydroiodic Acid	HI			40	-	-	40	40	-	40	60	-	
319	Hydroquinone	C ₆ H ₄ (OH) ₂		Satu	40	20	20	40	-	-	40	60	20	
320	Hypochlorous Acid	HOCl		10	40	-	-	40	40	-	40	60	-	
321	Iodine	I ₂			20	-	-	20	20	-	20	60	-	
322	Iodine Solution			10	-	-	-	-	-	-	0	60	-	
323	Isobutyl Alcohol	(CH ₃) ₂ CHCH ₂ OH		Pure	-	-	-	-	-	-	20	60	-	
324	Iso-Octane	C ₈ H ₁₈			-	-	-	-	-	-	20	60	20	
325	Isophorone			Pure	-	-	-	-	-	-	-	-	-	
326	Isopropyl Acetate	CH ₃ COOCH(CH ₃) ₂			-	-	-	-	-	-	-	-	-	
327	Isopropyl Alcohol	(CH ₃) ₂ CHOH		Pure	40	20	20	40	60	20	60	60	20	
328	Isopropyl Chloride	(CH ₃) ₂ CHCl			-	-	-	-	-	-	20	40	-	
329	Isopropyl Ether	(CH ₃) ₂ CH-O-CH(CH ₃) ₂		Pure	-	-	-	-	-	-	-	40	20	
330	Jet Fuel Jp-4				20	-	-	20	-	-	20	60	20	
331	Jet Fuel Jp-5				20	-	-	20	-	-	20	60	20	
332	Kerosene				20	-	-	20	20	-	20	60	20	
333	Lacquer				-	-	-	-	-	-	-	-	-	
334	Lactic Acid	CH ₃ CH(OH)COOH		25	40	20	20	40	60	20	60	60	20	
335	Lauric Acid	CH ₃ (CH ₂) ₁₀ COOH			-	-	-	-	20	-	20	60	-	
336	Lauroyl Chloride	C ₁₂ H ₂₅ OCl		Pure	-	-	-	-	-	-	-	60	-	
337	Lead Acetate	Pb(CH ₃ COO) ₂ ·3H ₂ O		Satu	40	20	40	40	60	20	60	60	20	
338	Lead Chloride	PbCl ₂			40	-	-	40	60	-	60	60	-	
339	Lead Nitrate	Pb(NO ₃) ₂		Satu	-	-	40	-	-	-	-	-	-	
340	Lead Sulfate	PbSO ₄			40	-	-	40	60	-	60	60	-	
341	Lemon Oil				-	-	-	-	-	-	-	60	-	
342	Linolenic Acid	CH ₃ (CH=CH-CH ₂) ₃ (CH ₂) ₇ COOH			20	-	-	20	20	-	20	60	-	
343	Linolenic Oil				-	-	-	-	-	-	-	60	-	
344	Linseed Oil				40	20	20	40	40	20	40	60	20	
345	Lithium Bromide	LiBr			40	-	-	40	-	-	60	60	-	
346	Lithium Chloride	LiCl		Satu	40	20	20	40	60	20	60	60	20	
347	Lithium hydroxide				-	-	-	-	20	20	20	20	20	
348	Lubricating Oil	(ASTM1)			40	-	-	40	-	-	60	60	20	
349	Lubricating Oil	(ASTM2)			-	-	-	-	-	-	-	60	20	
350	Lubricating Oil	(ASTM3)			40	-	-	40	20	-	60	60	20	
351	Machine Oil				40	-	-	40	60	-	60	60	-	
352	magnesium Carbonate	MgCO ₃			40	20	40	40	60	20	60	60	20	
353	Magnesium Citrate				40	-	-	40	60	-	60	60	-	
354	Magnesium Hydroxide	Mg(OH) ₂		Satu	40	20	20	40	60	20	60	60	20	
355	Magnesium Carbonate	MgCO ₃	1.0		-	-	-	-	-	-	-	-	-	
356	Magnesium Chloride	MgCl ₂		Satu	40	20	40	40	60	20	60	60	20	
357	Magnesium Fluoride	MgF ₂			-	-	-	-	-	-	-	-	-	
358	Magnesium Hypochloride	Mg(Ocl) ₂			-	-	-	-	-	-	-	-	-	
359	Magnesium Nitrate	Mg(NO ₃) ₂ ·6H ₂ O			40	20	20	40	60	20	60	60	20	
360	Magnesium Sulfate	MgSO ₄			40	20	40	40	60	20	60	60	20	
361	Magnesium Sulphate	MgSO ₄	1.19	25.2	-	-	-	-	-	-	-	-	-	
362	Maleic Acid	(CHCOO) ₂			40	20	-	40	60	20	60	60	-	
363	Malic Acid	C ₄ H ₆ O ₅			40	20	20	40	60	20	60	60	20	
364	Manganese Chloride	MnCl ₂			20	20	20	20	20	20	20	20	20	
365	Manganese Sulfate	MnSO ₄			40	-	20	40	60	-	60	60	-	
366	Mercuric Chloride	HgCl ₂			40	-	-	40	60	-	60	60	-	
367	Mercuric Cyanide	Hg(CN) ₂		Satu	40	-	-	40	60	-	60	60	-	
368	Mercuric Sulfate	HgSO ₄		Satu	20	-	-	20	20	-	20	60	-	
369	Mercurous Nitrate	Hg(NO ₃) ₂			20	20	20	20	20	20	20	60	20	
370	Mercury	Hg			20	20	20	20	20	20	20	60	20	
371	Mercury Fulminate				-	-	-	-	-	-	-	20	-	
372	Methane	CH ₄			40	-	-	40	60	-	60	60	-	
373	Methane Sulfonic Acid	CH ₃ SO ₃ H			-	-	-	-	-	-	0	40	-	
374	Methyl Acetate	CH ₃ COOCH ₃		Pure	-	-	-	-	-	20	-	40	20	
375	Methyl Acrylate	CH ₂ CHCOOCH ₃		Pure	-	-	-	-	-	-	20	40	20	
376	Methyl Alcohol	CH ₃ OH			40	20	-	40	40	20	40	60	-	
377	Methyl Amine	CH ₃ NH ₂			-	-	-	-	-	-	-	20	0	
378	Methyl Bromide	CH ₃ Br			-	-	-	-	-	-	-	60	0	
379	Methyl Cellosolve	HOCH ₂ CH ₂ OCH ₃			-	-	-	-	-	-	-	60	0	
380	Methyl Chloride	CH ₃ Cl			-	-	-	-	-	-	-	60	20	
381	Methyl Chloroform	CH ₃ CCl ₃			-	-	-	-	-	-	20	60	-	
382	Methyl Ether	(CH ₃) ₂ O			-	-	-	-	-	-	-	-	-	
383	Methyl Ethyl Ketone	CH ₃ COC ₂ H ₅			-	-	-	-	-	20	-	-	20	
384	Methyl Formate	HCOOCH ₃			-	-	-	-	-	-	-	-	-	
385	Methyl Isobutyl Carbinol	(CH ₃) ₂ CHCH ₂ CH(OH)(CH ₃)			-	-	-	-	-	-	-	-	-	
386	Methyl Isobutyl Ketone	(CH ₃) ₂ CHCH ₂ COCH ₃			-	-	-	-	-	-	-	-	-	
387	Methyl Isopropyl Ketone	(CH ₃) ₂ CH-C-CH ₃			-	-	-	-	-	-	-	-	-	
388	Methyl Methacrylate	CH ₂ C(CH ₃)COOCH ₃			-	-	-	-	-	-	-	20	-	
389	Methyl Salicylate	C ₉ H ₈ O ₃			-	-	-	-	-	-	-	-	-	
390	Methyl Sulfoxide	(CH ₃) ₂ SO			-	-	-	-	-	-	-	-	-	
391	Methylene Bromide	CH ₂ Br ₂			-	-	-	-	-	-	20	60	-	
392	Methylene Chloride	CH ₂ Cl ₂			-	-	-	-	-	-	-	40	20	
393	Methylene Iodide	CH ₂ I ₂			-	-	-	-	-	-	60	60	-	
394	Milk				-	-	-	-	-	-	-	60	-	
395	Mineral Oil				20	-	-	20	20	-	20	60	20	
396	Mixture Acid	50%H ₂ SO ₄ +50%HCl			-	-	-	-	-	-	-	-	-	
397	Monochloro-Benzene	C ₆ H ₅ Cl			-	-	-	-	20	-	20	60	-	
398	Monochloro Acetic Acid	ClCH ₂ COOH			20	-	-	20	20	-	20	60	-	
399	Monoethanol Amin	H ₂ NCH ₂ CH ₂ OH			-	-	-	-	-	-	-	-	-	
400	Monomethyl-Aniline	C ₆ H ₅ NHCH ₃			-	-	-	-	-	-	-	-	-	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	Ti	CE
60	80	120	80	60	1	20	20	60
60	80	120	80	60	1	20	20	60
60	80	120	40	40	1	20	20	60
60	80	120	40	1	1	20	20	60
60	60	120	20	20	0	0	0	60
40	1	120	120	100	1	20	20	60
40	1	120	100	80	1	20	20	60
20	1	120	100	40	1	20	20	60
60	80	100	60	60	0	0	0	60
0	0	120	1	20	0	0	0	60
40	80	120	80	60	60	0	0	60
40	80	120	80	60	0	0	0	60
20	60	120	80	20	0	0	0	60
20	1	120	40	1	20	0	0	60
0	0	80	20	1	1	0	0	60
60	80	120	60	100	0	0	0	60
60	100	120	100	100	120	0	0	60
40	40	120	40	40	1	0	0	60
60	0	80	40	20	20	20	0	60
40	60	120	40	40	0	0	0	60
20	80	120	20	1	20	0	0	60
40	0	120	0	0	0	0	0	60
0	0	80	20	20	0	0	0	60
0	0	80	20	1	20	20	20	60
0	0	0	1	1	0	0	0	60
0	0	0	1	20	0	0	0	60
60	60	80	100	60	20	20	20	60
0	0	40	20	1	0	0	0	60
0	20	40	1	1	20	20	20	60
20	0	80	20	1	20	20	20	60
20	0	80	20	1	20	20	20	60
60	40	80	20	1	20	20	20	60
0	0	0	1	1	20	0	0	60
60	80	120	100	100	20	20	20	60
0	20	120	20	0	20	0	0	60
60	80	120	80	80	40	20	20	60
60	60	120	100	80	0	0	0	60
60	80	100	100	80	120	1	1	1
60	80	120	100	80	0	0	0	60
0	1	120	0	0	20	0	0	60
60	20	120	20	1	20	0	0	60
60	0	120	0	0	0	0	0	60
60	80	120	40	20	20	20	20	60
60	0	120	100	0	0	0	0	60
60	80	120	80	40	20	20	20	60
0	20	20	20	20	20	20	20	60
60	0	120	100	0	120	20	20	60
60	0	120	0	0	120	20	20	60
60	20	120	100	1	120	20	20	60
60	60	100	60	1	0	0	0	60
60	100	120	100	80	100	20	20	60
60	100	120	100	80	0	0	0	60
60	80	120	100	80	20	20	20	60
0	0	0	0	0	0	0	0	60
60	100	120	100	100	60	20	20	60
20	20	50	20	20	1	0	0	1
0	0	0	0	0	0	0	0	60
60	80	120	100	80	20	20	20	60
60	80	120	100	100	60	20	20	60
0	0	0	0	0	0	0	0	60
60	100	120	80	60	1	20	0	60
60	100	120	60	100	20	20	20	60
20	20	20	20	20	20	20	20	60
40	100	120	100	80	20	0	0	60
60	80	120	60	60	1	0	0	60
60	80	120	60	20	0	0	0	60
60	80	120	20	20	0	0	0	60
20	20	120	20	20	20	20	20	60
60	80	120	20	20	60	20	20	60
0	20	20	0	0	20	0	0	60
60	100	120	100	80	0	0	0	60
0	0	40	0	0	0	0	0	60
1	20	40	1	20	20	20	20	60
0	0	40	20	1	20	20	20	60
60	80	80	40	80	1	20	20	60
1	1	1	20	20	20	20	20	60
0	1	80	0	20	20	0	0	60
0	0	60	0	20	0	0	0	60
0	0	60	1	20	20	20	20	60
0	0	60	20	1	20	0	0	60
0	0	0	1	1	0	0	0	60
1	20	1	1	20	20	20	20	60
0	0	0	0	0	20	0	0	60
0	0	0	0	20	20	0	0	60
1	20	0	1	20	20	0	0	60
0	0	1	0	0	0	0	0	60
0	0	0	1	1	0	0	0	60
0	0	0	20	1	1	0	0	60
0	0	0	20	1	1	0	0	60
0	0	0	0	0	0	0	0	60
0	0	0	0	0	0	0	0	60
1	1	40	1	1	20	20	20	60
0	0	80	20	1	0	0	0	60
60	100	120	0	0	0	0	0	60
40	40	120	20	1	20	20	20	60
0	0	0	0	0	0	0	0	60
0	20	60	20	1	0	0	0	60
60	40	80	20	1	0	0	0	60
0	0	0	0	0	20	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0	0	20	0	0	0	60
0	0	0						

Chemical Resistance Chart for IWAKI Metering Pumps

Explanation of footnotes

* : PVC braided hose is not recommended.

(**) : "BVC" type (check valve) is to be used.

1 Not suitable

0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
401	Motor Oil				-	-	-	-	-	-	20	60	-	
402	Naphtha				-	-	-	-	20	-	20	60	20	
403	Naphthalene	C ₁₀ H ₈			-	-	-	-	20	-	20	60	20	
404	Naphthalene Sulfonate	C ₁₀ H ₆ SO ₃ H ₂ O			-	-	-	-	-	-	-	-	20	
405	Natural Gas				40	-	-	40	-	-	60	60	-	
406	Nickel Acetate	Ni(CH ₃ COO) ₂			20	-	-	20	20	-	20	60	-	
407	Nickel Aminosulfonate	N ₂ (NH ₂ SO ₃) ₂ - H ₂ O			-	-	-	-	-	-	60	60	-	
408	Nickel Chloride	NiCl ₂		Satu	40	20	-	40	60	20	60	60	-	
409	Nickel Nitrate	Ni(NO ₃) ₂ ·6H ₂ O		Satu	20	20	20	20	20	20	60	60	20	
410	Nickel Sulfate	NiSO ₄		Satu	40	20	20	40	60	20	60	60	20	
411	Nicotine	C ₁₀ H ₁₄ N ₂			-	-	-	-	-	-	-	40	-	
412	Nicotine Acid	C ₈ H ₅ O ₂ N			-	-	-	-	-	-	-	60	-	
413	Nitric Acid	HNO ₃		10	40	20	40	40	60	20	60	60	20	
414	Nitric Acid	HNO ₃		30	40	20	40	40	60	20	60	60	20	
415	Nitric Acid	HNO ₃		50	20	-	-	20	40	-	40	60	20	
416	Nitric Acid	HNO ₃		70	-	-	-	-	-	-	-	60	20	
417	Nitric Acid	HNO ₃		98	-	-	-	-	-	-	-	40	20	
418	Nitrobenzene	C ₆ H ₅ NO ₂			-	-	-	-	20	20	60	60	20	
419	Nitroethane	CH ₃ CH ₂ NO ₂			-	-	-	-	-	20	-	20	20	
420	Nitrogen Dioxide	NO ₂			-	-	-	-	-	-	-	-	-	
421	Nitrogen Monoxide(**)	NO			40	-	-	40	60	-	60	60	-	
422	Nitroglycerin	C ₃ H ₅ N ₃ O ₉			-	-	-	-	-	-	-	-	20	
423	Nitromethane	CH ₃ NO ₂		Pure	-	-	-	-	-	-	-	40	-	
424	Nitrous Acid	HNO ₂		10	-	-	-	-	20	-	20	60	-	
425	Nitrous Oxide	N ₂ O			40	-	-	40	60	-	60	60	-	
426	Octane	C ₈ H ₁₈			-	-	-	-	-	-	20	60	-	
427	Oleic Acid	C ₁₇ H ₃₂ (CH ₂) ₇ COOH			40	-	-	40	60	-	60	60	20	
428	Olive Oil				40	20	20	40	60	20	60	60	20	
429	Oxalic Acid	HOCCOOH		20	40	-	20	40	60	-	60	60	-	
430	Oxalic Acid	HOCCOOH		50	20	-	-	20	20	-	20	60	-	
431	Oxygen Gas	O ₂			20	20	20	20	20	20	20	60	20	
432	Ozone	O ₃			20	-	20	20	-	-	20	60	-	
433	Pains Solvents				-	-	-	-	-	-	-	-	-	
434	Palm Oil			100	-	-	-	-	-	-	-	-	-	
435	Palmitic Acid	C ₁₅ H ₃₁ COOH		5	-	-	-	-	20	-	20	60	-	
436	Palmitic Acid	C ₁₅ H ₃₁ COOH		10	-	-	-	-	20	-	20	60	-	
437	Palmitic Acid	C ₁₅ H ₃₁ COOH		70	-	-	-	-	20	-	20	60	-	
438	Paraffin				20	-	-	20	20	-	20	60	20	
439	Peanut Oil				-	-	-	-	-	-	-	60	-	
440	Perchloric Acid	HClO ₄		10	20	-	-	20	20	-	20	60	-	
441	Perchloric Acid	HClO ₄		70	-	-	-	-	-	-	-	40	-	
442	Perchloroethylene	CCl ₂ CCl ₂	1.62	100	-	-	-	-	-	-	-	-	-	
443	Perphoshate				20	-	-	20	20	-	20	60	-	
444	Petroleum Oil				20	-	-	20	20	-	20	60	-	
445	Phenol (Carbonic Acid)	C ₆ H ₅ OH			20	20	20	20	20	20	20	60	20	
446	Phenyl Disulfide	C ₆ H ₅ SSC ₆ H ₅			-	-	-	-	-	-	-	-	-	
447	Phenylhydrazine	C ₆ H ₅ NNH ₂			-	-	-	-	-	-	-	40	-	
448	Phogene Gas	COCl ₂			-	-	-	-	-	-	-	-	-	
449	Phosgene Liquid	COCl ₂			-	-	-	-	-	-	-	20	-	
450	Phosphours Pentoxide	P ₂ O ₅			-	-	-	-	-	-	-	60	-	
451	Phosphoric Acid	H ₃ PO ₄		10	40	20	40	40	60	20	60	60	20	
452	Phosphoric Acid	H ₃ PO ₄		50	-	20	40	-	-	20	-	-	20	
453	Phosphoric Acid	H ₃ PO ₄		80	-	20	20	-	-	20	-	-	20	
454	Phosphorus Oxchloride	POCl ₃			-	-	-	-	-	-	-	-	-	
455	Phosphorus Trichloride	PCl ₃		Pure	-	-	-	-	-	-	-	60	-	
456	Phosphorus Red	P ₄			-	-	-	-	-	-	-	60	-	
457	Photographic Developer				-	20	20	-	-	20	-	20	20	
458	Photographic Fixative				-	20	-	-	-	20	-	20	-	
459	Phthalic Acid	C ₈ H ₆ (COOH) ₂			-	-	-	-	-	-	20	60	-	
460	Pickling Solution				-	-	-	-	-	-	-	60	-	
461	Picric Acid	C ₆ H ₃ O ₇ N ₃		10	40	-	-	40	60	-	20	20	-	
462	Plating Solution (Brass)				20	-	-	20	20	-	20	60	-	
463	Plating Solution (Cadmium)				20	-	-	20	-	-	20	60	-	
464	Plating Solution (Chrome)				-	-	-	-	-	-	-	60	-	
465	Plating Solution (Copper)				20	-	-	20	20	-	20	60	-	
466	Plating Solution (Gold)				20	-	-	20	-	-	20	60	-	
467	Plating Solution (Lead)				20	-	-	20	20	-	20	60	-	
468	Plating Solution (Nickel)				20	-	-	20	20	-	20	60	-	
469	Plating Solution (Rhodium)				20	-	-	20	20	-	20	60	-	
470	Plating Solution (Silver)				-	-	-	-	-	-	20	60	-	
471	Plating Solution (Tin)				40	-	-	40	60	-	60	60	-	
472	Plating Solution (Zinc)	(CH ₃) ₂ CH-C-CH ₃			-	-	-	-	-	-	-	-	-	
473	Poly Aluminum Chloride	[Al ₂ (OH)nCl _{3-n}] _m			40	-	-	40	60	-	60	60	-	
474	Polyethylene-Glycol	HOCH ₂ (CH ₂ OCH ₂) _n CH ₂ OH			40	-	-	40	60	-	60	60	-	
475	Polyvinyl Acetate	[CH ₂ COOCH ₂ -CH ₃] _n			-	-	-	-	-	-	-	20	60	
476	Polyvinyl Alcohol	[-CH ₂ CH(OH)-] _n			40	-	-	40	60	-	60	60	-	
477	Polyvinyl Butyrate				-	-	-	-	-	-	-	20	-	
478	Potash	K ₂ CO ₃			40	-	-	40	60	-	60	60	-	
479	Potassium	K			-	-	20	-	-	-	-	20	-	
480	Potassium Acetate	CH ₃ CO ₂ K		Satu	20	-	-	20	20	-	20	60	-	
481	Potassium Alminume Sulfate	K ₂ O·3Al ₂ O ₃ ·6SiO ₂ ·2H ₂ O			-	-	-	20	20	-	-	-	-	
482	Potassium Alum	K ₂ SO ₄ ·Al ₂ (SO ₄) ₃ ·24H ₂ O		Satu	40	-	40	40	60	-	60	60	-	
483	Potassium Bicarbonate (Hydrogencarbonate)	KHCO ₃		Satu	40	20	20	40	60	20	60	60	20	
484	Potassium Bichromate	K ₂ Cr ₂ O ₇		Satu	40	-	40	40	60	-	60	60	-	
485	Potassium Bisulfate	KHSO ₄			40	-	-	40	60	-	60	60	-	
486	Potassium Borate				40	-	20	40	60	-	60	60	-	
487	Potassium Bromate	KBrO ₃			-	-	-	-	-	-	-	60	-	
488	Potassium Bromide	KBr			40	20	40	40	60	20	60	60	20	
489	Potassium Carbonate	K ₂ CO ₃			40	20	20	40	60	20	60	60	20	
490	Potassium Chlorate	KClO ₃			40	20	40	40	60	20	60	60	20	
491	Potassium Chloride	KCl			40	20	40	40	60	20	60	60	20	
492	Potassium Chromate	K ₂ CrO ₄		30	40	20	20	40	60	20	60	60	20	
493	Potassium Coppercyanide	K ₃ [Cu(CN ₄)]			40	-	-	40	60	-	60	60	-	
494	Potassium Cyanide	KCN			20	20	20	20	20	20	20	60	20	
495	Potassium Dichromate	K ₂ Cr ₂ O ₇		1.07	10	20	20	20	20	20	20	20	20	
496	Potassium Ferricyanide(Red)	K ₃ [Fe(CN) ₆]			20	20	20	20	20	20	20	60	20	
497	Potassium Ferricyanide(Yellow)	K ₃ [Fe(CN) ₆]		1.16	20	-	20	20	20	-	60	60	-	
498	Potassium Ferrocyanide	K ₄ [Fe(CN) ₆]			20	-	-	20	20	-	60	60	-	
499	Potassium Fluoride				20	-	20	20	20	-	60	60	-	
500	Potassium Hvdroxide	KOH		25	-	20	40	-	-	20	-	60	20	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	TI	CE
0	0	120	20	0	0	0	0	60
1	20	80	20	1	20	20	20	60
0	20	80	20	1	20	20	20	60
0	0	0	0	0	20	20	20	60
60	1	120	100	1	1	1	1	60
60	80	100	20	1	0	0	0	60
0	0	80	60	100	0	0	0	60
60	80	120	100	100	1	20	20	60
20	20	120	120	100	120	20	0	60
60	100	120	80	100	20	20	0	60
0	0	40	0	0	0	0	0	60
0	0	120	0	20	0	0	0	60
60	100	120	100	60	60	20	20	60
40	80	120	60	40	60	20	20	60
20	40	120	40	1	60	20	20	60
20	1	80	1	1	60	20	20	60
1	1	40	1	1	20	20	20	60
1	20	60	60	60	20	20	20	60
0	20	20	1	20	20	20	20	60
0	0	0	60	0	0	0	0	60
60	60	60	60	60	0	0	0	60
0	0	0	20	0	20	20	20	60
0	0	40	0	20	0	0	0	60
0	20	80	20	20	20	0	0	60
60	80	100	120	80	0	0	0	60
0	0	80	20	1	0	0	0	60
60	60	100	120	1	20	20	20	60
60	100	120	60	20	20	20	20	60
60	100	120	60	40	20	1	1	60
60	100	120	20	20	1	0	0	60
20	20	80	20	20	20	20	20	60
40	1	80	20	20	20	0	0	60
0	0	0	1	1	0	0	0	60
0	0	0	0	0	0	0	0	60
0	100	120	20	20	0	0	0	60
0	80	120	20	20	0	0	0	60
0	80	120	20	20	0	0	0	60
20	20	120	20	1	20	20	20	60
20	20	120	0	0	0	0	0	60
20	40	120	20	20	1	1	1	60
0	0	40	0	0	0	0	0	60
0	0	0	0	0	0	0	0	60
60	100	120	20	20	0	0	0	60
20	20	120	20	1	120	0	0	60
60	60	60	20	20	60	20	20	60
0	0	0	20	1	0	0	0	60
1	1	40	1	20	0	0	0	60
0	1	0	0	0	0	0	0	60
20	20	20	0	0	0	0	0	60
20	20	120	0	0	0	0	0	60
60	100	120	80	100	80	20	1	60
40	60	120	80	100	80	20	1	1
20	40	120	80	100	80	20	1	1
1	1	1	1	1	0	0	0	60
1	1	120	1	1	20	0	20	60
20	20	120	0	0	0	0	0	60
20	20	20	1	20	20	20	0	60
20	20	20	1	20	1	20	20	60
1	1	100	20	20	20	1	1	60
60	80	120	0	0	0	0	0	60
60	100	20	80	80	1	1	0	60
60	80	120	20	20	0	0	0	60
60	1	120	20	20	1	0	0	60
60	1	120	0	0	1	0	0	60
60	80	100	20	20	1	0	0	60
60	1	120	20	20	1	0	0	60
60	60	120	20	1	1	0	0	60
60	60	120	20	20	1	0	0	60
60	60	120	20	20	1	0	0	60
0	0	60	20	20	1	0	0	60
60	60	120	80	60	1	0	0	60
0	0	0	20	20	1	0	0	60
40	60	60	60	60	0	0	0	60
60	100	120	100	80	0	0	0	60
0	0	120	20	20	0	0	0	60
60	80	120	60	40	0	0	0	60
0	20	20	1	20	20	0	0	60
60	80	120	100	80	0	0	0	60
60	80	20	1	20	20	0	0	60
20	20	120	20	20	0	0	0	60
60	80	120	100	80	1	1	0	1
60	80	120	120	60	120	0	0	60
60	80	120	100	80	20	20	0	60
40	80	120	100	80	120	0	0	60
60	100	120	100	80	0	0	0	60
60	100	120	100	80	20	0	0	60
60	80	120	0	0	0	0	0	60
60	100	120	100	80	80	20	30	60
60	100	120	100	80	20	20	1	60
60	80	120	60	40	40	20	1	60
60	100	120	100	80	120	20	20	60
60	80	120	100	80	20	20	0	60
60	100	120	100	100	0	0	0	60
60	100	120	20	20	20	20	0	60
60	40	20	20	20	20	20	20	60
20	20	120	60	60	60	20	0	60
20	20	120	60	60	0	0	0	60
20	20	120	100	80	20	0	0	60
60	80	60	1	100	120	20	20	60

Chemical Resistance Chart for IWAKI Metering Pumps

Explanation of footnotes

* : PVC braided hose is not recommended.
 (**): "BVC" type (check valve) is to be used.

1 Not suitable
 0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
501	Potassium Hypochlorite	KClO ₄			20	-	-	20	-	-	20	60	-	
502	Potassium Iodide	KI			40	20	20	40	60	-	60	60	20	
503	Potassium Nitrate	KNO ₃			40	20	40	40	-	-	60	60	20	
504	Potassium Oxalate	K ₂ (COO) ₂			-	-	-	-	-	-	-	-	-	
505	Potassium Perborate				-	-	-	-	-	-	-	60	-	
506	Potassium Perchlorate	KClO ₄			-	-	-	-	-	-	-	60	-	
507	Potassium Permagnate	KMnO ₄		10	40	-	40	40	60	-	60	60	-	
508	Potassium Permagnate	KMnO ₄		25	40	20	20	40	60	20	60	60	20	
509	Potassium Permanganate	KMnO ₄	1.03	4	-	-	-	-	-	-	-	-	-	
510	Potassium Persulfate	K ₂ S ₂ O ₈			-	-	-	-	-	-	-	60	-	
511	Potassium Silicats	K ₂ SiO ₃			-	-	-	-	-	-	-	-	-	
512	Potassium Sulfate	CrK(SO ₄) ₂ ·12H ₂ O		10	40	20	-	40	60	20	60	60	-	
513	Potassium Sulfide	K ₂ S			20	20	20	20	20	20	20	20	20	
514	Potassium Sulfite	K ₂ SO ₃			40	20	20	40	60	20	60	60	20	
515	Potassium Tartraate	C ₈ H ₄ KO ₆		50	-	-	-	-	-	-	-	-	-	
516	Propane	CH ₃ COC ₂ H ₅			20	-	-	20	20	-	20	60	20	
517	Propionic Acid	C ₂ H ₅ COOH			-	-	-	-	-	-	-	-	-	
518	Propyl Acetate	CH ₃ CO ₂ C ₂ H ₇		Pure	-	-	-	-	-	-	-	40	-	
519	Propyl Nitrate (Nitropropane)				-	-	-	-	-	-	-	-	20	
520	Propylacetone	CH ₃ COC ₂ H ₅			-	-	-	-	-	-	-	-	-	
521	Propylalcohol	C ₃ H ₇ OH			40	-	-	40	60	-	60	60	-	
522	Propylene Dichloride	CH ₂ CHClCH ₂ Cl			-	-	-	-	-	-	-	-	20	
523	Propylene Oxide	C ₃ H ₆ O			-	-	-	-	-	-	-	-	-	
524	Pyridine	C ₅ H ₅ N			-	-	-	-	-	-	-	-	-	
525	Pyrogallol	C ₆ H ₃ (OH) ₃			-	-	-	-	-	-	-	20	-	
526	Rhodan Salts				40	-	-	40	60	-	60	60	-	
527	Rosin (Colophonium)				-	-	-	-	-	-	-	-	-	
528	Salicylic Acid	C ₆ H ₄ (OH)(COOH)			20	20	20	20	-	-	20	60	20	
529	Salicylic Aldehyde	C ₆ H ₄ (OH)(CHO)			-	-	-	-	-	-	20	40	-	
530	Salt Water				40	-	-	40	60	-	60	60	-	
531	Sea Water				40	-	-	40	60	-	60	60	-	
532	Sewage				40	-	-	40	60	-	60	60	-	
533	Silane	SiH ₄			-	-	-	-	-	-	-	-	20	
534	Silicic Acid	SiO ₂ -nH ₂ O			40	20	40	40	60	20	60	60	20	
535	Silicone Oil				40	20	20	40	40	20	40	60	20	
536	Silver Chloride	AgCl			-	-	-	0	20	20	20	20	-	
537	Silver Cyanide	Ag-CN			40	-	-	40	60	-	60	60	-	
538	Silver Nitrate	AgNO ₃			40	-	-	40	60	-	60	60	-	
539	Silver Sulfate	AgSO ₄			40	-	-	40	60	-	60	60	-	
540	Soap				40	20	40	40	60	20	60	60	20	
541	Sodium (Tetra) Borate	Na ₂ B ₄ O ₇		Satu	-	-	-	-	60	20	60	60	20	
542	Sodium Acetate	CH ₃ CO ₂ Na		Satu	20	20	20	20	20	20	20	60	20	
543	Sodium Alum	Na Al(SO ₄) ₂			40	-	-	40	60	-	60	60	-	
544	Sodium B(D)ichromate	Na ₂ Cr ₂ O ₇		20	40	20	40	40	60	20	60	60	20	
545	Sodium Benzoate	C ₆ H ₅ O ₂ Na			20	20	20	20	20	20	20	60	20	
546	Sodium Bicarbonate (Hydrogencarbonate)	NaHCO ₃	1.20	20	40	20	20	40	60	20	60	60	20	
547	Sodium Bisulfate(Hydrosulfate)	NaHSO ₄			40	-	-	40	60	-	60	60	-	
548	Sodium Bisulfite(Hydrogen Sulfite)	NaHSO ₃			40	-	20	40	60	-	60	60	-	
549	Sodium Bromate	NaBrO ₃			-	-	-	-	20	-	20	20	-	
550	Sodium Bromide	NaBr			20	20	-	20	20	20	20	60	-	
551	Sodium Carbonate	Na ₂ CO ₃		1.10	10	40	20	40	40	60	20	60	20	
552	Sodium Chlorate	NaClO ₃		Satu	40	20	-	40	60	20	60	60	-	
553	Sodium Chloride	NaCl		1.19	25	20	20	-	20	20	20	60	-	
554	Sodium Chloride(Saline solution)	NaCl			40	-	-	40	60	-	60	60	-	
555	Sodium Chlorite	NaClO ₂		25	-	-	-	-	-	-	20	20	-	
556	Sodium Cyanide	NaCN			40	20	20	40	60	20	60	60	20	
557	Sodium Cyanide	NaCN		1.22	40	-	-	-	-	-	-	-	-	
558	Sodium Ferricyanide	Na ₃ [Fe(CN) ₆]·H ₂ O		10	40	20	20	40	60	20	60	60	20	
559	Sodium ferrocyanide	Na ₄ [Fe(CN) ₆]·10H ₂ O		Satu	40	20	20	40	60	20	60	60	20	
560	Sodium Fluoride	NaF			40	20	20	40	60	20	60	60	20	
561	Sodium Hydroxide	NaOH		5	-	-	-	-	-	-	-	-	20	
562	Sodium Hydroxide	NaOH		15	-	-	40	-	-	-	-	60	-	
563	Sodium Hydroxide	NaOH		30	-	-	40	-	-	-	-	20	-	
564	Sodium Hydroxide	NaOH		50	-	-	40	-	-	-	-	20	-	
565	Sodium Hypochlorite	NaClO		3	40	20	-	40	60	20	60	60	-	
566	Sodium Hypochlorite	NaClO		5	40	40	-	40	40	40	60	60	-	
567	Sodium Hypochlorite	NaClO		7	40	20	-	40	20	20	60	60	-	
568	Sodium Hypochlorite	NaClO		10	40	-	-	40	20	-	40	60	-	
569	Sodium Hypochlorite	NaClO		13	40	-	-	40	20	-	40	60	-	
570	Sodium Hyposulfate	Na ₂ SO ₂ O ₄			-	-	-	-	20	-	20	20	-	
571	Sodium Metal	Na			-	-	-	-	-	-	-	-	20	
572	Sodium Metasilicate	Na ₂ SiO ₃			40	-	-	40	60	-	60	60	-	
573	Sodium Nitrate	NaNO ₃		Satu	40	-	40	40	60	-	60	60	-	
574	Sodium Nitrite	NaNO ₂		Satu	40	-	-	40	60	-	60	60	-	
575	Sodium Oxalate	(COONa) ₂			-	-	-	-	20	-	20	20	-	
576	Sodium Palmitate	Na(C ₁₅ H ₃₁ COO)			-	-	-	-	-	-	-	60	-	
577	Sodium Perborate	NaBO ₃ ·4H ₂ O			-	-	-	-	20	-	20	60	-	
578	Sodium Perchlorate	NaClO ₄			-	20	20	-	-	20	-	60	20	
579	Sodium Peroxide	Na ₂ O ₂			20	20	20	20	20	20	20	60	20	
580	Sodium Phoshate	Na ₂ HPO ₄ ·12H ₂ O			40	-	-	40	60	-	60	60	-	
581	Sodium Phoshate Acid	NaH ₂ PO ₄ ·2H ₂ O			40	-	-	40	60	-	60	60	-	
582	Sodium Phoshate Alkaline	Na ₂ PO ₄ ·12H ₂ O			40	-	-	40	60	-	60	60	-	
583	Sodium Salicylate	C ₆ H ₄ (OH)COONa			-	-	-	-	-	-	-	-	-	
584	Sodium Silicate	Na ₂ SiO ₂			20	20	20	20	20	20	20	20	20	
585	Sodium Silicofluoride	Na ₂ SiF ₆			40	-	-	40	60	-	60	60	-	
586	Sodium Sulfate	Na ₂ SO ₄		1.10	14	40	20	40	40	60	20	60	20	
587	Sodium Sulfide	Na ₂ S			40	20	40	40	60	20	60	60	20	
588	Sodium Sulfite	Na ₂ SO ₃			40	20	20	40	60	20	60	60	20	
589	Sodium Thiocyanate	NaSCN			40	-	-	40	60	-	60	60	-	
590	Sodium Thiosulfate	Na ₂ S ₂ O ₃			20	20	20	20	20	20	20	60	20	
591	Sodium Thiosulfate	Na ₂ S ₂ O ₅			40	-	40	40	60	-	60	60	-	
592	Sour Crude Oil				-	-	-	0	20	-	20	60	-	
593	Soybean Oil				40	-	-	40	60	-	60	60	-	
594	Stannic Chloride	SnCl ₂			-	-	-	-	-	-	-	60	-	
595	Stannous Chloride	SnCl ₂			40	-	-	40	60	-	60	60	-	
596	Starch	(C ₆ H ₁₀ O ₅) _n			40	-	-	40	60	-	60	60	-	
597	Stearic Acid	CH ₃ (CH ₂) ₁₆ COOH			40	-	-	40	60	-	60	60	20	
598	Styrene Monomer	C ₆ H ₅ CH=CH ₂			-	-	-	-	-	-	-	60	-	
599	Sulfiteliquar	NaHSO ₃		6	40	-	-	40	60	-	60	60	-	
600	Sulfonated Oil				-	-	-	-	-	-	-	-	-	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	TI	CE
20	0	60	20	1	0	0	0	60
60	100	120	100	80	20	20	0	60
60	0	120	100	80	40	20	20	60
0	0	0	0	0	20	0	0	60
60	100	120	0	0	0	0	0	60
60	60	120	0	0	20	0	20	60
60	80	120	60	60	40	0	0	60
60	80	120	60	40	20	20	1	60
0	0	0	0	0	0	0	0	60
20	20	120	0	0	0	0	0	60
0	0	0	0	0	0	1	1	60
60	100	120	100	80	1	20	20	60
20	20	20	20	20	20	20	20	60
60	60	60	60	60	20	20	20	60
0	0	0	20	20	20	0	0	60
20	20	80	20	1	20	20	20	60
0	0	0	0	0	0	20	20	60
0	0	40	1	20	0	0	0	60
0	0	0	0	0	20	20	20	60
0	0	1	0	0	0	0	0	60
80	80	120	100	80	0	0	0	60
0	1	0	20	1	20	20	20	60
0	0	1	1	0	0	0	0	60
1	60	1	1	20	20	1	1	60
0	0	20	0	0	20	0	0	60
60	80	120	80	60	0	0	0	60
0	0	0	0	0	0	0	0	60
20	0	100	20	20	20	20	0	60
0	0	40	20	20	0	0	0	60
60	80	120	80	80	1	0	0	60
60	100	120	80	80	1	0	0	60
60	100	120	80	60	0	0	0	60
0	0	0	0	0	20	20	20	60
60	100	120	100	80	40	20	20	60
60	100	120	40	20	20	20	20	60
0	20	20	20	20	1	20	20	60
60	100	120	60	60	0	0	0	60
60	100	120	80	80	1	1	20	60
80	100	120	100	80	120	20	20	60
0	100	120	80	60	20	20	20	60
60	100	120	20	80	20	20	20	60
60	100	120	100	80	0	0	0	60
40	80	120	100	80	120	20	20	60
60	100	120	20	20	20	20	20	60
60	60	60	60	60	20	20	20	60
80	60	60	60	60	1	1	1	60
60	100	80	100	100	20	1	1	60
0	20	20	20	20	1	0	0	60
60	100	120	20	20	1	20	0	60
60	100	120	100	80	60	20	20	60
60	80	120	100	100	1	20	20	60
20	20	80	20	20	1	20	1	60
60	100	120	80	80	1	0	0	60
1	1	20	60	40	1	1	100	60
60	100	120	60	60	20	20	20	60
0	0	0	0	0	0	0	0	60
60	80	120	60	60	20	20	0	60
60	80	120	60	60	20	20	20	60
60	100	120	60	60	20	20	20	60
60	0	0	0	0	20	20	20	60
60	40	60	1	100	120	0	0	60
60	80	20	1	100	120	0	0	60
60	80	20	1	80	120	1	1	60
40	60	60	60	40	1	20	20	60
40	40	60	60	40	1	50	1	60
40	20	60	60	20	1	30	1	60
40	20	60	40	1	1	1	1	60
40	20	60	40	1	1	1	1	60
0	20	20	20	20	1	0	0	60
1	0	1	0	0	20	20	0	1
60	100	120	100	100	0	0	0	60
60	100	120	100	80	120	1	0	60
60	100	120	100	80	1	1	20	60
0	20	20	20	20	20	0	0	60
0	0	120	0	0	0	0	0	60
0	20	120	20	20	1	1	0	60
60	80	120	1	20	20	20	20	60
80	80	120	20	20	20	20	20	60
60	80	100	100	80	1	1	20	60
60	80	120	100	80	0	0	0	60
60	80	120	100	80	0	0	0	60
0	0	0	0	0	20	0	0	60
60	80	20	20	20	20	20	20	60
60	60	120	60	60	0	0	0	60
60	80	120	100	80	60	20	20	60
60	80	120	20	20	20	20	20	60
60	100	120	100	100	80	0	0	60
0	60	120	20	1	0	0	0	60
60	100	120	80	60	0	0	0	60
60	80	120	1	60	1	0	0	60
60	80	120	60	0	1	0	0	60
60	80	120	100	80	0	0	0	60
60	80	120	60	1	120	20	20	60
0	0	80	1	1	0	0	0	60
60	100	120	60	60	0	0	0	60
0	0	0	20	20	0	0	0	60

Chemical Resistance Chart for IWAKI Metering Pumps

Explanation of footnotes

* : PVC braided hose is not recommended.

(**): "BVC" type (check valve) is to be used.

1 Not suitable

0 No data

No.	Liquid	Molecular Formula	S.G.	Conc. %	Max. Service Temperature (°C)									
					VC	VH	V6	VM	PC	PH	TC	FC	SH	
601	Sulfuric Acid	H ₂ SO ₄		10	40	20	40	40	60	20	60	60	20	
602	Sulfuric Acid	H ₂ SO ₄		30	40	20	40	40	60	20	60	60	20	
603	Sulfuric Acid	H ₂ SO ₄		50	40	20	40	40	60	20	60	60	20	
604	Sulfuric Acid	H ₂ SO ₄		60	40	20	40	40	60	20	60	60	20	
605	Sulfuric Acid	H ₂ SO ₄		70	40	20	40	40	60	20	60	60	20	
606	Sulfuric Acid	H ₂ SO ₄		80	40	20	40	40	60	20	60	60	20	
607	Sulfuric Acid	H ₂ SO ₄		90	40	20	40	40	60	20	60	60	20	
608	Sulfuric Acid	H ₂ SO ₄		98	-	-	-	-	-	-	-	60	20	
609	Sulfur	S			-	-	20	-	-	-	-	60	-	
610	Sulfur Chloride	S ₂ Cl ₂			-	-	-	-	-	-	20	60	-	
611	Sulfur Dioxide (Dry)	SO ₂			40	-	-	40	40	-	40	60	-	
612	Sulfur Dioxide (Wet)	SO ₂			40	-	40	40	60	-	60	60	-	
613	Sulfuric Anhydride	SO ₃			-	-	-	-	-	-	-	-	-	
614	Sulfurous Acid	H ₂ SO ₃			40	20	20	40	60	20	60	60	20	
615	Sulphuric Acid	H ₂ SO ₄		75	-	-	-	-	-	-	-	-	-	
616	Sulphuric Acid	H ₂ SO ₄	1.84	98	-	-	-	-	-	-	-	-	-	
617	Surfamic Acid	HSO ₂ NH ₂		20	-	-	-	-	-	-	-	-	-	
618	Surflic Dichloride	SCl ₂			-	-	-	-	-	-	20	60	-	
619	Tall Oil				-	-	-	-	-	-	20	60	-	
620	Tannic Acid	C ₇₆ H ₅₂ O ₄₈			-	20	20	-	-	20	-	60	20	
621	Tar			Satu	-	-	-	-	20	-	20	60	-	
622	Tartaric Acid	C ₄ H ₆ O ₆			20	20	20	20	20	20	20	60	20	
623	Tetrachloro Ethane	Cl ₂ CH-CHCl ₂		Pure	-	-	-	-	-	-	20	60	-	
624	Tetrachloro(Perchloro) Ethylene	CCl ₂ =CCl ₂		Pure	-	-	-	-	20	-	40	60	20	
625	Tetraethyl Lead	Pb(C ₂ H ₅) ₄			-	-	-	-	-	-	-	60	-	
626	Tetrahydrofuran	C ₄ H ₈ O		Pure	-	-	-	-	-	-	20	-	-	
627	Tetraline (Tetrahydro Naphthalene)	C ₁₀ H ₁₂			-	-	-	-	-	-	0	-	-	
628	Tetramethyl Ammonium Hydroxide			50	-	-	-	-	-	-	-	60	-	
629	Tetrial Butyl alcohol	(CH ₃) ₃ C(OH)			20	-	-	20	20	-	20	60	-	
630	Tetrial Butyl Catechol	C ₈ H ₇ (C ₆ H ₃)(OH) ₂			-	-	-	-	-	-	-	-	-	
631	Tin Chloride	SnCl ₂ ·2H ₂ O			20	-	-	20	20	-	20	20	-	
632	Titanic Sulfate	Ti(SO ₄) ₂			-	-	-	-	-	-	-	60	-	
633	Titanium Dioxide	TiO ₂			-	-	-	-	20	20	20	20	20	
634	Titanium Tetrachloride	TiCl ₄			-	-	-	-	-	-	-	-	-	
635	Titanous Sulfate	Ti ₂ (SO ₄) ₃			-	-	-	-	-	-	-	60	-	
636	Toluene	C ₆ H ₅ CH ₃			-	-	-	-	20	-	20	60	20	
637	Tomato Juice				-	-	-	-	-	-	-	60	-	
638	Triacetin	C ₃ H ₅ O ₂ (COCH ₃) ₃			-	-	-	-	-	-	-	-	-	
639	Tributyl Phosphate	(C ₄ H ₉ O) ₃ PO			-	-	-	-	-	-	-	40	-	
640	Trichloroacetic Acid	Cl ₃ C-COOH			-	-	-	-	-	-	-	40	-	
641	Trichloroethylene	ClHC=CCl ₂			-	-	-	-	20	-	20	60	-	
642	Trichloroethylene	C ₂ HCl ₃			-	-	-	-	-	-	-	-	-	
643	Triethanolamine	N(CH ₂ CH ₂ OH) ₃			-	-	-	-	-	-	-	-	20	
644	Triethyl Propan				-	-	-	-	-	-	-	60	-	
645	Triethylamine	(C ₂ H ₅) ₃ N			-	20	20	-	-	20	-	20	20	
646	Trisodium Phosphate	Na ₃ PO ₄	1.02	4	-	-	-	-	-	-	-	-	-	
647	Turbin Oil				20	-	-	20	20	-	20	20	-	
648	Turpentine Oil				-	-	-	-	20	-	20	60	-	
649	Uranium Chloride				-	-	-	-	20	-	-	-	-	
650	Uranium Oxide				-	-	-	-	20	-	20	20	-	
651	Urea	CO(NH ₂) ₂		Pure	20	20	20	20	20	20	20	60	20	
652	Uric Acid	C ₅ H ₄ N ₄ O ₃			-	-	-	-	-	-	-	-	20	
653	Urine			80	40	-	-	40	60	-	60	60	-	
654	Vaseline				20	-	-	20	20	-	20	60	-	
655	Vegetable Oil				20	-	20	20	20	-	20	60	-	
656	Vineger				40	20	20	40	60	20	60	60	20	
657	Vinyl Acetate	CH ₃ COOCH=CH ₂			-	-	-	-	-	-	-	60	20	
658	Whisky				40	20	20	40	60	20	60	60	20	
659	White Acid			Pure	-	-	-	-	-	-	-	60	-	
660	White Lliquor				40	-	-	40	40	-	40	60	-	
661	Wine				40	-	-	40	40	-	40	60	-	
662	Xylene	C ₆ H ₄ (CH ₃) ₂			-	-	-	-	-	-	20	60	20	
663	Yellow Phosphorus	P ₄			-	-	-	-	-	-	-	60	-	
664	Zinc Acetate	(CH ₃ COO) ₂ Zn			40	-	-	40	60	-	60	60	-	
665	Zinc Bromide	ZnBr ₂			40	-	-	40	60	-	60	60	-	
666	Zinc Chloride	ZnCl ₂			40	-	-	40	60	-	60	60	-	
667	Zinc Nitrate	Zn(NO ₃) ₂ ·6H ₂ O			40	-	-	40	60	-	60	60	-	
668	Zinc Sulfate	ZnSO ₄			40	-	40	40	60	-	60	60	-	

Max. Service Temperature (°C)								
PVC	PPG	PVDF	FKM	EPDM	SUS	HC	Ti	CE
60	100	120	100	80	80	20	1	60
60	100	120	100	80	80	20	1	60
60	100	120	100	80	100	20	1	60
60	100	120	100	80	80	20	1	60
60	80	120	100	80	80	20	1	60
60	80	120	80	60	60	20	1	60
60	80	120	80	40	60	20	1	60
20	1	60	1	1	60	20	1	60
60	100	120	1	20	20	1	1	60
0	1	120	20	1	0	0	0	60
60	60	120	40	100	0	0	0	60
60	60	120	60	100	100	0	0	60
1	1	1	1	1	0	0	0	60
60	100	120	80	100	20	20	20	60
0	0	0	0	0	0	0	0	60
0	0	0	0	0	0	0	0	60
0	0	0	0	0	0	0	0	60
1	1	1	0	0	0	0	0	60
0	1	120	20	1	0	0	0	60
0	0	120	20	1	0	0	0	60
20	100	120	0	20	80	20	20	60
1	20	120	20	1	0	0	0	60
60	80	120	20	80	20	20	20	60
0	0	80	20	1	0	0	0	60
1	20	60	40	1	20	20	20	60
0	0	120	0	0	0	0	0	60
1	20	20	1	1	0	0	0	60
0	0	0	20	1	0	0	0	60
0	0	80	0	0	0	0	0	60
20	20	80	20	20	0	0	0	60
0	0	0	0	20	0	0	0	60
20	20	20	20	20	1	1	20	60
60	80	120	0	0	0	0	0	60
0	20	20	20	20	20	20	20	60
0	20	1	1	1	1	1	0	60
60	100	120	0	0	0	0	0	60
1	20	60	20	1	20	20	20	60
60	100	120	0	0	0	0	0	60
0	0	0	20	20	0	0	0	60
0	40	40	1	20	20	0	0	60
1	60	40	1	1	1	0	0	60
1	20	60	20	1	0	0	0	60
0	0	0	0	0	0	0	0	60
1	1	1	1	20	20	20	20	60
0	0	80	0	0	0	0	0	60
20	20	20	1	20	20	20	20	60
0	0	0	0	0	0	0	0	60
20	20	20	60	1	0	0	0	60
0	20	120	20	20	0	0	0	60
0	20	0	20	20	1	0	0	60
0	20	20	20	20	20	0	0	60
60	100	120	20	20	20	20	20	60
0	0	0	0	0	20	20	20	60
60	80	120	100	100	0	0	0	60
60	80	120	20	1	0	0	0	60
20	20	120	20	20	20	0	0	60
60	100	120	60	60	20	20	20	60
1	0	120	1	20	20	20	20	60
60	60	120	60	80	20	20	20	60
0	0	80	0	0	0	0	0	60
60	60	120	40	80	0	0	0	60
60	60	120	40	80	0	0	0	60
1	1	80	20	1	20	20	20	60
20	20	120	0	0	0	0	0	60
60	100	120	100	80	0	0	0	60
60	80	80	60	60	0	0	0	60
60	80	80	60	60	0	0	0	60
60	100	120	100	80	0	0	0	60
60	100	120	100	80	100	0	0	60

Note: The data presented in this selection chart is based on information furnished by the manufacturers of the raw materials and our experience. This information may be considered as a basis for recommendation, but **NOT AS A GUARANTEE**.
Materials should be tested under actual service to determine suitability for a particular purpose.