



Niagara Blower Heat Transfer Solutions

Niagara "KV" Liquid Chart

"No-Frost" and Dehumidification Systems

Refrigerant Temperature °F	Concentration %Volume	Solution Boiling Point °F	Solution Freezing Point °F	Specific Gravity @70 °F	Refractive Index 68°F	Sucrose % @68°F
35	10	212.8	26	1.008	1.345	8
26	20	214.1	18	1.018	1.357	16
22	25	215.1	13	1.022	1.363	20
16	30	216.1	7	1.027	1.368	23
13	32	216.4	4	1.028	1.371	24
10	34	217.0	1	1.030	1.373	25
7	36	217.8	-3	1.032	1.375	27
3	38	218.0	-6	1.033	1.377	28
0	40	218.6	-9	1.035	1.379	29
-4	42	219.2	-13	1.036	1.381	30
-8	44	220.0	-17	1.037	1.383	31
-12	46	220.7	-21	1.039	1.386	32
-16	48	221.5	-25	1.040	1.388	34
-22	50	222.4	-31	1.041	1.390	35
-28	52	223.5	-37	1.042	1.392	36
-35	54	224.5	-44	1.043	1.394	37
-46	56	225.6	-55	1.044	1.396	38
-60	58	226.8	-69	1.046	1.398	39
-	60	227.8	-	1.047	1.400	40
-	65	231.7	-	1.049	1.404	42
-	70	235.8	-	1.051	1.409	44
-	72	238.0	-	1.051	1.410	45
-	74	240.3	-	1.052	1.412	46
-	76	242.6	-	1.053	1.414	47
-	78	245.5	-	1.053	1.415	48
-	80	248.5	-	1.054	1.417	49
-	82	252.0	-	1.054	1.419	50
-	84	257.5	-	1.055	1.420	50
-	86	261.2	-	1.055	1.421	51
-	88	266.6	-	1.055	1.423	52
-	90	273.8	-	1.056	1.424	52

Instructions:

1. Find the conditioner operating refrigerant temperature in the first column.
2. The minimum recommended concentration is listed in the second column.
3. The BPA set point should correspond to the third column.
4. Using a refractometer, the last column will indicate the solution's sucrose value. The solution concentration is found in the second column.