

Table 1: Temperature corrections to the refractometer Brix of sucrose solutions

Temperature (°C)	Measured sucrose (mass fraction)								
	0	5	10	15	20	25	30	35	40
15	-0.29	-0.30	-0.32	-0.33	-0.34	-0.35	-0.36	-0.37	-0.37
16	-0.24	-0.25	-0.26	-0.27	-0.28	-0.28	-0.29	-0.30	-0.30
17	-0.18	-0.19	-0.20	-0.20	-0.21	-0.21	-0.22	-0.22	-0.23
18	-0.12	-0.13	-0.13	-0.14	-0.14	-0.14	-0.15	-0.15	-0.15
19	-0.06	-0.06	-0.07	-0.07	-0.07	-0.07	-0.07	-0.08	-0.08
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08
22	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.16
23	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.23	0.23
24	0.27	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31
25	0.34	0.35	0.36	0.37	0.38	0.38	0.39	0.39	0.40
26	0.42	0.43	0.44	0.45	0.46	0.46	0.47	0.47	0.48
27	0.50	0.51	0.52	0.53	0.54	0.55	0.55	0.56	0.56
28	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.64	0.64
29	0.66	0.67	0.68	0.70	0.71	0.71	0.72	0.73	0.73
30	0.74	0.76	0.77	0.78	0.79	0.80	0.81	0.81	0.82
31	0.83	0.84	0.85	0.87	0.88	0.89	0.89	0.90	0.90
32	0.92	0.93	0.94	0.96	0.97	0.98	0.98	0.99	0.99
33	1.01	1.02	1.03	1.05	1.06	1.07	1.07	1.08	1.08
34	1.10	1.11	1.13	1.14	1.15	1.16	1.16	1.17	1.17
35	1.19	1.21	1.22	1.23	1.24	1.25	1.25	1.26	1.26
36	1.29	1.30	1.31	1.33	1.34	1.34	1.35	1.35	1.35
37	1.39	1.40	1.41	1.42	1.43	1.44	1.44	1.44	1.44
38	1.49	1.50	1.51	1.52	1.53	1.53	1.54	1.54	1.53
39	1.59	1.60	1.61	1.62	1.63	1.63	1.63	1.63	1.63
40	1.69	1.70	1.71	1.72	1.73	1.73	1.73	1.73	1.72

ICUMSA (1998). Table B, Appendix 2. *ICUMSA Methods Book*, SPS-3: 8.

Table 1: Temperature corrections to the refractometer Brix of sucrose solutions
(continued)

Temperature (°C)	Measured sucrose (mass fraction)								
	45	50	55	60	65	70	75	80	85
15	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.37	-0.37
16	-0.30	-0.31	-0.31	-0.31	-0.31	-0.31	-0.30	-0.30	-0.30
17	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.22
18	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15
19	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07
22	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15
23	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.22
24	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.30	0.30
25	0.40	0.40	0.40	0.40	0.39	0.39	0.38	0.38	0.37
26	0.48	0.48	0.48	0.48	0.47	0.47	0.46	0.46	0.45
27	0.56	0.56	0.56	0.56	0.55	0.55	0.54	0.53	0.52
28	0.65	0.65	0.64	0.64	0.63	0.63	0.62	0.61	0.60
29	0.73	0.73	0.73	0.72	0.72	0.71	0.70	0.69	0.67
30	0.82	0.81	0.81	0.80	0.80	0.79	0.78	0.76	0.75
31	0.90	0.90	0.89	0.89	0.88	0.87	0.86	0.84	0.82
32	0.99	0.99	0.98	0.97	0.96	0.95	0.93	0.92	0.90
33	1.08	1.07	1.07	1.06	1.04	1.03	1.01	1.00	0.98
34	1.16	1.16	1.15	1.14	1.13	1.11	1.09	1.07	1.05
35	1.25	1.25	1.24	1.23	1.21	1.19	1.17	1.15	1.13
36	1.34	1.34	1.33	1.31	1.29	1.28	1.25	1.23	1.20
37	1.43	1.43	1.41	1.40	1.38	1.36	1.33	1.31	1.28
38	1.53	1.52	1.50	1.48	1.46	1.44	1.42	1.39	1.36
39	1.62	1.61	1.59	1.57	1.55	1.52	1.50	1.47	1.43
40	1.71	1.70	1.68	1.66	1.63	1.61	1.58	1.54	1.51

ICUMSA (1998). Table B, Appendix 2. *ICUMSA Methods Book*, SPS-3: 8.

Table 2: Solubility of sucrose in 100 g water at different temperatures

Temperature (°C)	Sucrose (g)	Temperature (°C)	Sucrose (g)	Temperature (°C)	Sucrose (g)
0	64.41	31	68.36	61	74.43
1	64.48	32	68.54	62	74.66
2	64.56	33	68.72	63	74.88
3	64.64	34	68.89	64	75.10
4	64.73	35	69.08	65	75.33
5	64.82	36	69.26	66	75.56
6	64.92	37	69.45	67	75.78
7	65.02	38	69.64	68	76.01
8	65.11	39	69.83	69	76.24
9	65.22	40	70.02	70	76.46
10	65.33	41	70.22	71	76.69
11	65.44	42	70.41	72	76.92
12	65.56	43	70.61	73	77.15
13	65.68	44	70.81	74	77.38
14	65.80	45	71.01	75	77.60
15	65.93	46	71.21	76	77.83
16	66.06	47	71.42	77	78.06
17	66.19	48	71.63	78	78.29
18	66.33	49	71.84	79	78.52
19	66.47	50	72.05	80	78.75
20	66.61	51	72.26	81	78.97
21	66.75	52	72.47	82	79.20
22	66.90	53	72.68	83	79.43
23	67.05	54	72.90	84	79.66
24	67.21	55	73.11	85	79.88
25	67.36	56	73.33	86	80.11
26	67.52	57	73.55	87	80.33
27	67.69	58	73.77	88	80.56
28	67.85	59	73.99	89	80.78
29	68.02	60	74.21	90	81.01
30	68.19				

SASTA (1985). *Laboratory Manual for South African Sugar Factories*. 3rd Edition: 387.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
0.0	0.99715	0.000	5.0	1.01676	5.089
0.1	0.99754	0.100	5.1	1.01716	5.193
0.2	0.99792	0.200	5.2	1.01756	5.297
0.3	0.99831	0.300	5.3	1.01796	5.401
0.4	0.99870	0.400	5.4	1.01836	5.505
0.5	0.99908	0.500	5.5	1.01876	5.609
0.6	0.99947	0.600	5.6	1.01916	5.713
0.7	0.99986	0.701	5.7	1.01956	5.817
0.8	1.00024	0.801	5.8	1.01996	5.922
0.9	1.00063	0.902	5.9	1.02036	6.026
1.0	1.00102	1.002	6.0	1.02076	6.131
1.1	1.00141	1.103	6.1	1.02116	6.236
1.2	1.00180	1.203	6.2	1.02157	6.340
1.3	1.00218	1.304	6.3	1.02197	6.445
1.4	1.00257	1.405	6.4	1.02237	6.550
1.5	1.00296	1.506	6.5	1.02278	6.655
1.6	1.00335	1.607	6.6	1.02318	6.760
1.7	1.00374	1.708	6.7	1.02358	6.865
1.8	1.00413	1.809	6.8	1.02399	6.970
1.9	1.00452	1.911	6.9	1.02439	7.076
2.0	1.00491	2.012	7.0	1.02480	7.181
2.1	1.00530	2.113	7.1	1.02520	7.286
2.2	1.00569	2.215	7.2	1.02561	7.392
2.3	1.00609	2.316	7.3	1.02601	7.498
2.4	1.00648	2.418	7.4	1.02642	7.603
2.5	1.00687	2.520	7.5	1.02682	7.709
2.6	1.00726	2.622	7.6	1.02723	7.815
2.7	1.00765	2.724	7.7	1.02764	7.921
2.8	1.00805	2.826	7.8	1.02804	8.027
2.9	1.00844	2.928	7.9	1.02845	8.133
3.0	1.00883	3.030	8.0	1.02886	8.239
3.1	1.00923	3.132	8.1	1.02927	8.346
3.2	1.00962	3.234	8.2	1.02967	8.452
3.3	1.01001	3.337	8.3	1.03008	8.558
3.4	1.01041	3.439	8.4	1.03049	8.665
3.5	1.01080	3.542	8.5	1.03090	8.772
3.6	1.01120	3.644	8.6	1.03131	8.878
3.7	1.01159	3.747	8.7	1.03172	8.985
3.8	1.01199	3.850	8.8	1.03213	9.092
3.9	1.01239	3.952	8.9	1.03254	9.199
4.0	1.01278	4.055	9.0	1.03295	9.306
4.1	1.01318	4.158	9.1	1.03336	9.413
4.2	1.01357	4.261	9.2	1.03377	9.520
4.3	1.01397	4.365	9.3	1.03418	9.628
4.4	1.01437	4.468	9.4	1.03459	9.735
4.5	1.01477	4.571	9.5	1.03501	9.843
4.6	1.01516	4.675	9.6	1.03542	9.950
4.7	1.01556	4.778	9.7	1.03583	10.058
4.8	1.01596	4.882	9.8	1.03624	10.165
4.9	1.01636	4.985	9.9	1.03666	10.273

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
10.0	1.03707	10.381	15.0	1.05812	15.887
10.1	1.03748	10.489	15.1	1.05855	16.000
10.2	1.03790	10.597	15.2	1.05898	16.112
10.3	1.03831	10.705	15.3	1.05941	16.225
10.4	1.03873	10.814	15.4	1.05984	16.338
10.5	1.03914	10.922	15.5	1.06027	16.450
10.6	1.03956	11.030	15.6	1.06070	16.563
10.7	1.03997	11.139	15.7	1.06113	16.676
10.8	1.04039	11.248	15.8	1.06156	16.789
10.9	1.04080	11.356	15.9	1.06199	16.902
11.0	1.04122	11.465	16.0	1.06242	17.015
11.1	1.04164	11.574	16.1	1.06285	17.129
11.2	1.04205	11.683	16.2	1.06329	17.242
11.3	1.04247	11.792	16.3	1.06372	17.356
11.4	1.04289	11.901	16.4	1.06415	17.469
11.5	1.04331	12.010	16.5	1.06458	17.583
11.6	1.04372	12.119	16.6	1.06502	17.697
11.7	1.04414	12.229	16.7	1.06545	17.810
11.8	1.04456	12.338	16.8	1.06588	17.924
11.9	1.04498	12.448	16.9	1.06632	18.038
12.0	1.04540	12.557	17.0	1.06675	18.153
12.1	1.04582	12.667	17.1	1.06719	18.267
12.2	1.04624	12.777	17.2	1.06762	18.381
12.3	1.04666	12.887	17.3	1.06806	18.495
12.4	1.04708	12.997	17.4	1.06850	18.610
12.5	1.04750	13.107	17.5	1.06893	18.725
12.6	1.04792	13.217	17.6	1.06937	18.839
12.7	1.04834	13.327	17.7	1.06980	18.954
12.8	1.04877	13.438	17.8	1.07024	19.069
12.9	1.04919	13.548	17.9	1.07068	19.184
13.0	1.04961	13.659	18.0	1.07112	19.299
13.1	1.05003	13.769	18.1	1.07156	19.414
13.2	1.05046	13.880	18.2	1.07199	19.529
13.3	1.05088	13.991	18.3	1.07243	19.645
13.4	1.05130	14.101	18.4	1.07287	19.760
13.5	1.05173	14.212	18.5	1.07331	19.876
13.6	1.05215	14.323	18.6	1.07375	19.991
13.7	1.05257	14.435	18.7	1.07419	20.107
13.8	1.05300	14.546	18.8	1.07463	20.223
13.9	1.05342	14.657	18.9	1.07507	20.339
14.0	1.05385	14.769	19.0	1.07551	20.455
14.1	1.05428	14.880	19.1	1.07595	20.571
14.2	1.05470	14.992	19.2	1.07639	20.687
14.3	1.05513	15.103	19.3	1.07684	20.803
14.4	1.05555	15.215	19.4	1.07728	20.919
14.5	1.05598	15.327	19.5	1.07772	21.036
14.6	1.05641	15.439	19.6	1.07816	21.152
14.7	1.05684	15.551	19.7	1.07861	21.269
14.8	1.05726	15.663	19.8	1.07905	21.386
14.9	1.05769	15.775	19.9	1.07949	21.503

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
20.0	1.07994	21.620	25.0	1.10256	27.590
20.1	1.08038	21.737	25.1	1.10302	27.712
20.2	1.08083	21.854	25.2	1.10348	27.834
20.3	1.08127	21.971	25.3	1.10394	27.956
20.4	1.08172	22.088	25.4	1.10440	28.078
20.5	1.08216	22.206	25.5	1.10486	28.200
20.6	1.08261	22.323	25.6	1.10532	28.323
20.7	1.08306	22.441	25.7	1.10579	28.445
20.8	1.08350	22.558	25.8	1.10625	28.568
20.9	1.08395	22.676	25.9	1.10671	28.691
21.0	1.08440	22.794	26.0	1.10718	28.814
21.1	1.08484	22.912	26.1	1.10764	28.936
21.2	1.08529	23.030	26.2	1.10811	29.059
21.3	1.08574	23.148	26.3	1.10857	29.183
21.4	1.08619	23.267	26.4	1.10903	29.306
21.5	1.08664	23.385	26.5	1.10950	29.429
21.6	1.08709	23.504	26.6	1.10997	29.553
21.7	1.08754	23.622	26.7	1.11043	29.676
21.8	1.08799	23.741	26.8	1.11090	29.800
21.9	1.08844	23.860	26.9	1.11137	29.924
22.0	1.08889	23.978	27.0	1.11183	30.047
22.1	1.08934	24.097	27.1	1.11230	30.171
22.2	1.08979	24.216	27.2	1.11277	30.295
22.3	1.09024	24.336	27.3	1.11324	30.420
22.4	1.09069	24.455	27.4	1.11370	30.544
22.5	1.09114	24.574	27.5	1.11417	30.668
22.6	1.09160	24.694	27.6	1.11464	30.793
22.7	1.09205	24.813	27.7	1.11511	30.917
22.8	1.09250	24.933	27.8	1.11558	31.042
22.9	1.09296	25.052	27.9	1.11605	31.167
23.0	1.09341	25.172	28.0	1.11652	31.292
23.1	1.09386	25.292	28.1	1.11699	31.417
23.2	1.09432	25.412	28.2	1.11746	31.542
23.3	1.09477	25.532	28.3	1.11793	31.667
23.4	1.09523	25.653	28.4	1.11841	31.792
23.5	1.09568	25.773	28.5	1.11888	31.917
23.6	1.09614	25.893	28.6	1.11935	32.043
23.7	1.09660	26.014	28.7	1.11982	32.169
23.8	1.09705	26.135	28.8	1.12030	32.294
23.9	1.09751	26.255	28.9	1.12077	32.420
24.0	1.09797	26.376	29.0	1.12124	32.546
24.1	1.09842	26.497	29.1	1.12172	32.672
24.2	1.09888	26.618	29.2	1.12219	32.798
24.3	1.09934	26.739	29.3	1.12267	32.924
24.4	1.09980	26.860	29.4	1.12314	33.051
24.5	1.10026	26.982	29.5	1.12362	33.177
24.6	1.10072	27.103	29.6	1.12409	33.304
24.7	1.10117	27.225	29.7	1.12457	33.430
24.8	1.10163	27.346	29.8	1.12505	33.557
24.9	1.10209	27.468	29.9	1.12552	33.684

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
30.0	1.12600	33.811	35.0	1.15030	40.297
30.1	1.12648	33.938	35.1	1.15080	40.429
30.2	1.12696	34.065	35.2	1.15129	40.562
30.3	1.12743	34.193	35.3	1.15179	40.695
30.4	1.12791	34.320	35.4	1.15229	40.827
30.5	1.12839	34.447	35.5	1.15278	40.960
30.6	1.12887	34.575	35.6	1.15328	41.093
30.7	1.12935	34.703	35.7	1.15378	41.227
30.8	1.12983	34.831	35.8	1.15427	41.360
30.9	1.13031	34.958	35.9	1.15477	41.493
31.0	1.13079	35.087	36.0	1.15527	41.627
31.1	1.13127	35.215	36.1	1.15577	41.760
31.2	1.13175	35.343	36.2	1.15627	41.894
31.3	1.13224	35.471	36.3	1.15677	42.028
31.4	1.13272	35.600	36.4	1.15727	42.162
31.5	1.13320	35.728	36.5	1.15777	42.296
31.6	1.13368	35.857	36.6	1.15827	42.430
31.7	1.13417	35.986	36.7	1.15877	42.564
31.8	1.13465	36.115	36.8	1.15927	42.699
31.9	1.13513	36.244	36.9	1.15977	42.833
32.0	1.13562	36.373	37.0	1.16027	42.968
32.1	1.13610	36.502	37.1	1.16078	43.103
32.2	1.13659	36.631	37.2	1.16128	43.238
32.3	1.13707	36.761	37.3	1.16178	43.373
32.4	1.13756	36.890	37.4	1.16228	43.508
32.5	1.13804	37.020	37.5	1.16279	43.643
32.6	1.13853	37.150	37.6	1.16329	43.778
32.7	1.13902	37.280	37.7	1.16380	43.914
32.8	1.13950	37.409	37.8	1.16430	44.049
32.9	1.13999	37.540	37.9	1.16481	44.185
33.0	1.14048	37.670	38.0	1.16531	44.321
33.1	1.14097	37.800	38.1	1.16582	44.457
33.2	1.14145	37.930	38.2	1.16632	44.593
33.3	1.14194	38.061	38.3	1.16683	44.729
33.4	1.14243	38.192	38.4	1.16734	44.865
33.5	1.14292	38.322	38.5	1.16784	45.001
33.6	1.14341	38.453	38.6	1.16835	45.138
33.7	1.14390	38.584	38.7	1.16886	45.275
33.8	1.14439	38.715	38.8	1.16937	45.411
33.9	1.14488	38.846	38.9	1.16988	45.548
34.0	1.14537	38.978	39.0	1.17038	45.685
34.1	1.14587	39.109	39.1	1.17089	45.822
34.2	1.14636	39.241	39.2	1.17140	45.959
34.3	1.14685	39.372	39.3	1.17191	46.097
34.4	1.14734	39.504	39.4	1.17242	46.234
34.5	1.14783	39.636	39.5	1.17294	46.371
34.6	1.14833	39.768	39.6	1.17345	46.509
34.7	1.14882	39.900	39.7	1.17396	46.647
34.8	1.14932	40.032	39.8	1.17447	46.785
34.9	1.14981	40.164	39.9	1.17498	46.923

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
40.0	1.17550	47.061	45.0	1.20160	54.118
40.1	1.17601	47.199	45.1	1.20213	54.262
40.2	1.17652	47.337	45.2	1.20266	54.406
40.3	1.17704	47.476	45.3	1.20320	54.551
40.4	1.17755	47.614	45.4	1.20373	54.696
40.5	1.17806	47.753	45.5	1.20426	54.840
40.6	1.17858	47.892	45.6	1.20479	54.985
40.7	1.17909	48.031	45.7	1.20533	55.130
40.8	1.17961	48.170	45.8	1.20586	55.275
40.9	1.18013	48.309	45.9	1.20640	55.420
41.0	1.18064	48.448	46.0	1.20693	55.566
41.1	1.18116	48.588	46.1	1.20747	55.711
41.2	1.18168	48.727	46.2	1.20800	55.857
41.3	1.18219	48.867	46.3	1.20854	56.003
41.4	1.18271	49.007	46.4	1.20908	56.148
41.5	1.18323	49.146	46.5	1.20961	56.294
41.6	1.18375	49.286	46.6	1.21015	56.440
41.7	1.18427	49.427	46.7	1.21069	56.587
41.8	1.18479	49.567	46.8	1.21123	56.733
41.9	1.18531	49.707	46.9	1.21176	56.879
42.0	1.18583	49.848	47.0	1.21230	57.026
42.1	1.18635	49.988	47.1	1.21284	57.173
42.2	1.18687	50.129	47.2	1.21338	57.320
42.3	1.18739	50.270	47.3	1.21392	57.467
42.4	1.18791	50.411	47.4	1.21446	57.614
42.5	1.18843	50.552	47.5	1.21500	57.761
42.6	1.18895	50.693	47.6	1.21554	57.908
42.7	1.18948	50.834	47.7	1.21608	58.056
42.8	1.19000	50.976	47.8	1.21663	58.203
42.9	1.19052	51.117	47.9	1.21717	58.351
43.0	1.19105	51.259	48.0	1.21771	58.499
43.1	1.19157	51.401	48.1	1.21825	58.647
43.2	1.19210	51.543	48.2	1.21880	58.795
43.3	1.19262	51.685	48.3	1.21934	58.943
43.4	1.19315	51.827	48.4	1.21988	59.092
43.5	1.19367	51.969	48.5	1.22043	59.240
43.6	1.19420	52.112	48.6	1.22097	59.389
43.7	1.19472	52.254	48.7	1.22152	59.537
43.8	1.19525	52.397	48.8	1.22206	59.686
43.9	1.19578	52.539	48.9	1.22261	59.835
44.0	1.19630	52.682	49.0	1.22316	59.984
44.1	1.19683	52.825	49.1	1.22370	60.134
44.2	1.19736	52.968	49.2	1.22425	60.283
44.3	1.19789	53.112	49.3	1.22480	60.433
44.4	1.19842	53.255	49.4	1.22535	60.582
44.5	1.19895	53.399	49.5	1.22589	60.732
44.6	1.19948	53.542	49.6	1.22644	60.882
44.7	1.20001	53.686	49.7	1.22699	61.032
44.8	1.20054	53.830	49.8	1.22754	61.182
44.9	1.20107	53.974	49.9	1.22809	61.332

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
50.0	1.22864	61.483	55.0	1.25664	69.171
50.1	1.22919	61.633	55.1	1.25721	69.328
50.2	1.22974	61.784	55.2	1.25778	69.485
50.3	1.23029	61.935	55.3	1.25835	69.643
50.4	1.23084	62.086	55.4	1.25892	69.800
50.5	1.23140	62.237	55.5	1.25949	69.958
50.6	1.23195	62.388	55.6	1.26006	70.116
50.7	1.23250	62.539	55.7	1.26063	70.274
50.8	1.23306	62.691	55.8	1.26121	70.432
50.9	1.23361	62.842	55.9	1.26178	70.590
51.0	1.23416	62.994	56.0	1.26235	70.748
51.1	1.23472	63.146	56.1	1.26293	70.907
51.2	1.23527	63.298	56.2	1.26350	71.066
51.3	1.23583	63.450	56.3	1.26408	71.224
51.4	1.23638	63.602	56.4	1.26465	71.383
51.5	1.23694	63.755	56.5	1.26523	71.542
51.6	1.23749	63.907	56.6	1.26580	71.702
51.7	1.23805	64.060	56.7	1.26638	71.861
51.8	1.23861	64.212	56.8	1.26695	72.020
51.9	1.23917	64.365	56.9	1.26753	72.180
52.0	1.23972	64.518	57.0	1.26811	72.340
52.1	1.24028	64.672	57.1	1.26869	72.500
52.2	1.24084	64.825	57.2	1.26926	72.660
52.3	1.24140	64.978	57.3	1.26984	72.820
52.4	1.24196	65.132	57.4	1.27042	72.980
52.5	1.24252	65.285	57.5	1.27100	73.141
52.6	1.24308	65.439	57.6	1.27158	73.301
52.7	1.24364	65.593	57.7	1.27216	73.462
52.8	1.24420	65.747	57.8	1.27274	73.623
52.9	1.24476	65.902	57.9	1.27332	73.784
53.0	1.24532	66.056	58.0	1.27390	73.945
53.1	1.24589	66.210	58.1	1.27448	74.106
53.2	1.24645	66.365	58.2	1.27507	74.268
53.3	1.24701	66.520	58.3	1.27565	74.429
53.4	1.24757	66.675	58.4	1.27623	74.591
53.5	1.24814	66.830	58.5	1.27681	74.753
53.6	1.24870	66.985	58.6	1.27740	74.915
53.7	1.24927	67.140	58.7	1.27798	75.077
53.8	1.24983	67.295	58.8	1.27857	75.239
53.9	1.25040	67.451	58.9	1.27915	75.401
54.0	1.25096	67.607	59.0	1.27973	75.564
54.1	1.25153	67.762	59.1	1.28032	75.727
54.2	1.25209	67.918	59.2	1.28091	75.889
54.3	1.25266	68.074	59.3	1.28149	76.052
54.4	1.25323	68.231	59.4	1.28208	76.215
54.5	1.25379	68.387	59.5	1.28267	76.379
54.6	1.25436	68.543	59.6	1.28325	76.542
54.7	1.25493	68.700	59.7	1.28384	76.705
54.8	1.25550	68.857	59.8	1.28443	76.869
54.9	1.25607	69.014	59.9	1.28502	77.033

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
60.0	1.28561	77.197	65.0	1.31555	85.576
60.1	1.28620	77.361	65.1	1.31616	85.747
60.2	1.28679	77.525	65.2	1.31677	85.919
60.3	1.28738	77.689	65.3	1.31738	86.090
60.4	1.28797	77.854	65.4	1.31799	86.262
60.5	1.28856	78.019	65.5	1.31860	86.434
60.6	1.28915	78.183	65.6	1.31921	86.606
60.7	1.28974	78.348	65.7	1.31982	86.778
60.8	1.29033	78.513	65.8	1.32044	86.951
60.9	1.29092	78.679	65.9	1.32105	87.123
61.0	1.29152	78.844	66.0	1.32166	87.296
61.1	1.29211	79.009	66.1	1.32227	87.468
61.2	1.29270	79.175	66.2	1.32289	87.641
61.3	1.29330	79.341	66.3	1.32350	87.814
61.4	1.29389	79.507	66.4	1.32411	87.988
61.5	1.29449	79.673	66.5	1.32473	88.161
61.6	1.29508	79.839	66.6	1.32534	88.335
61.7	1.29568	80.005	66.7	1.32596	88.508
61.8	1.29627	80.172	66.8	1.32657	88.682
61.9	1.29687	80.339	66.9	1.32719	88.856
62.0	1.29747	80.505	67.0	1.32781	89.030
62.1	1.29806	80.672	67.1	1.32842	89.204
62.2	1.29866	80.839	67.2	1.32904	89.379
62.3	1.29926	81.007	67.3	1.32966	89.553
62.4	1.29986	81.174	67.4	1.33028	89.728
62.5	1.30046	81.341	67.5	1.33089	89.903
62.6	1.30106	81.509	67.6	1.33151	90.078
62.7	1.30166	81.677	67.7	1.33213	90.253
62.8	1.30226	81.845	67.8	1.33275	90.428
62.9	1.30286	82.013	67.9	1.33337	90.604
63.0	1.30346	82.181	68.0	1.33399	90.779
63.1	1.30406	82.349	68.1	1.33461	90.955
63.2	1.30466	82.518	68.2	1.33523	91.131
63.3	1.30526	82.687	68.3	1.33586	91.307
63.4	1.30586	82.855	68.4	1.33648	91.483
63.5	1.30647	83.024	68.5	1.33710	91.660
63.6	1.30707	83.193	68.6	1.33772	91.836
63.7	1.30767	83.363	68.7	1.33835	92.013
63.8	1.30828	83.532	68.8	1.33897	92.190
63.9	1.30888	83.702	68.9	1.33959	92.367
64.0	1.30949	83.871	69.0	1.34022	92.544
64.1	1.31009	84.041	69.1	1.34084	92.721
64.2	1.31070	84.211	69.2	1.34147	92.899
64.3	1.31130	84.381	69.3	1.34209	93.076
64.4	1.31191	84.551	69.4	1.34272	93.254
64.5	1.31251	84.722	69.5	1.34334	93.432
64.6	1.31312	84.892	69.6	1.34397	93.610
64.7	1.31373	85.063	69.7	1.34460	93.788
64.8	1.31434	85.234	69.8	1.34522	93.966
64.9	1.31495	85.405	69.9	1.34585	94.145

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
70.0	1.34648	94.323	75.0	1.37837	103.452
70.1	1.34711	94.502	75.1	1.37902	103.639
70.2	1.34774	94.681	75.2	1.37967	103.826
70.3	1.34837	94.860	75.3	1.38032	104.013
70.4	1.34900	95.040	75.4	1.38097	104.200
70.5	1.34963	95.219	75.5	1.38161	104.387
70.6	1.35026	95.398	75.6	1.38226	104.574
70.7	1.35089	95.578	75.7	1.38291	104.762
70.8	1.35152	95.758	75.8	1.38356	104.949
70.9	1.35215	95.938	75.9	1.38421	105.137
71.0	1.35278	96.118	76.0	1.38487	105.325
71.1	1.35341	96.299	76.1	1.38552	105.513
71.2	1.35405	96.479	76.2	1.38617	105.702
71.3	1.35468	96.660	76.3	1.38682	105.890
71.4	1.35531	96.841	76.4	1.38747	106.079
71.5	1.35595	97.021	76.5	1.38813	106.268
71.6	1.35658	97.203	76.6	1.38878	106.456
71.7	1.35722	97.384	76.7	1.38943	106.646
71.8	1.35785	97.565	76.8	1.39009	106.835
71.9	1.35849	97.747	76.9	1.39074	107.024
72.0	1.35912	97.928	77.0	1.39140	107.214
72.1	1.35976	98.110	77.1	1.39205	107.404
72.2	1.36039	98.292	77.2	1.39271	107.593
72.3	1.36103	98.475	77.3	1.39336	107.784
72.4	1.36167	98.657	77.4	1.39402	107.974
72.5	1.36231	98.839	77.5	1.39468	108.164
72.6	1.36294	99.022	77.6	1.39532	108.355
72.7	1.36358	99.205	77.7	1.39599	108.545
72.8	1.36422	99.388	77.8	1.39665	108.736
72.9	1.36486	99.571	77.9	1.39731	108.927
73.0	1.36550	99.754	78.0	1.39796	109.118
73.1	1.36614	99.938	78.1	1.39862	109.310
73.2	1.36678	100.121	78.2	1.39928	109.501
73.3	1.36742	100.305	78.3	1.39994	109.693
73.4	1.36806	100.489	78.4	1.40060	109.885
73.5	1.36870	100.673	78.5	1.40126	110.077
73.6	1.36935	100.857	78.6	1.40192	110.269
73.7	1.36999	101.041	78.7	1.40258	110.461
73.8	1.37063	101.226	78.8	1.40324	110.654
73.9	1.37127	101.411	78.9	1.40391	110.846
74.0	1.37192	101.595	79.0	1.40457	111.039
74.1	1.37256	101.780	79.1	1.40523	111.232
74.2	1.37321	101.966	79.2	1.40589	111.425
74.3	1.37385	102.151	79.3	1.40656	111.618
74.4	1.37450	102.336	79.4	1.40722	111.812
74.5	1.37514	102.522	79.5	1.40788	112.005
74.6	1.37579	102.708	79.6	1.40855	112.199
74.7	1.37643	102.894	79.7	1.40921	112.393
74.8	1.37708	103.080	79.8	1.40988	112.587
74.9	1.37773	103.266	79.9	1.41054	112.781

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
80.0	1.41121	112.976	85.0	1.44495	122.905
80.1	1.41188	113.170	85.1	1.44564	123.107
80.2	1.41254	113.365	85.2	1.44632	123.310
80.3	1.41321	113.560	85.3	1.44700	123.513
80.4	1.41388	113.755	85.4	1.44769	123.717
80.5	1.41454	113.950	85.5	1.44837	123.920
80.6	1.41521	114.146	85.6	1.44906	124.124
80.7	1.41588	114.341	85.7	1.44975	124.327
80.8	1.41655	114.537	85.8	1.45043	124.531
80.9	1.41722	114.733	85.9	1.45112	124.735
81.0	1.41789	114.929	86.0	1.45180	124.940
81.1	1.41856	115.125	86.1	1.45249	125.144
81.2	1.41923	115.321	86.2	1.45318	125.349
81.3	1.41990	115.518	86.3	1.45387	125.553
81.4	1.42057	115.715	86.4	1.45456	125.758
81.5	1.42124	115.911	86.5	1.45524	125.963
81.6	1.42191	116.108	86.6	1.45593	126.169
81.7	1.42258	116.306	86.7	1.45662	126.374
81.8	1.42326	116.503	86.8	1.45731	126.580
81.9	1.42393	116.700	86.9	1.45800	126.786
82.0	1.42460	116.898	87.0	1.45869	126.991
82.1	1.42527	117.096	87.1	1.45938	127.198
82.2	1.42595	117.294	87.2	1.46007	127.404
82.3	1.42662	117.492	87.3	1.46076	127.610
82.4	1.42730	117.690	87.4	1.46145	127.817
82.5	1.42797	117.889	87.5	1.46215	128.024
82.6	1.42865	118.088	87.6	1.46284	128.231
82.7	1.42932	118.286	87.7	1.46353	128.438
82.8	1.43000	118.485	87.8	1.46422	128.645
82.9	1.43067	118.685	87.9	1.46492	128.852
83.0	1.43135	118.884	88.0	1.46561	129.060
83.1	1.43203	119.083	88.1	1.46630	129.268
83.2	1.43270	119.283	88.2	1.46700	129.476
83.3	1.43338	119.483	88.3	1.46769	129.684
83.4	1.43406	119.683	88.4	1.46839	129.892
83.5	1.43474	119.883	88.5	1.46908	130.100
83.6	1.43542	120.083	88.6	1.46978	130.309
83.7	1.43609	120.284	88.7	1.47047	130.518
83.8	1.43677	120.484	88.8	1.47117	130.727
83.9	1.43745	120.685	88.9	1.47186	130.936
84.0	1.43813	120.886	89.0	1.47256	131.145
84.1	1.43881	121.087	89.1	1.47326	131.354
84.2	1.43949	121.288	89.2	1.47395	131.564
84.3	1.44018	121.490	89.3	1.47465	131.774
84.4	1.44086	121.691	89.4	1.47535	131.984
84.5	1.44154	121.893	89.5	1.47605	132.194
84.6	1.44222	122.095	89.6	1.47675	132.404
84.7	1.44290	122.297	89.7	1.47745	132.615
84.8	1.44359	122.499	89.8	1.47814	132.825
84.9	1.44427	122.702	89.9	1.47884	133.036

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 3: Brix, apparent density and concentration of sucrose solutions at 20°C
(continued)

Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)	Brix (%)	Apparent density (g/cm³)	Concentration (g/100 cm³)
90.0	1.47954	133.247	92.6	1.49784	138.791
90.1	1.48024	133.458	92.7	1.49855	139.006
90.2	1.48094	133.669	92.8	1.49926	139.222
90.3	1.48164	133.881	92.9	1.49997	139.437
90.4	1.48235	134.092	93.0	1.50068	139.653
90.5	1.48305	134.304	93.1	1.50138	139.870
90.6	1.48375	134.516	93.2	1.50209	140.086
90.7	1.48445	134.728	93.3	1.50280	140.302
90.8	1.48515	134.941	93.4	1.50351	140.519
90.9	1.48585	135.153	93.5	1.50422	140.736
91.0	1.48656	135.366	93.6	1.50493	140.953
91.1	1.48726	135.578	93.7	1.50564	141.170
91.2	1.48796	135.791	93.8	1.50636	141.387
91.3	1.48867	136.005	93.9	1.50707	141.605
91.4	1.48937	136.218	94.0	1.50778	141.123
91.5	1.49008	136.431	94.1	1.50849	142.040
91.6	1.49078	136.645	94.2	1.50920	142.259
91.7	1.49149	136.859	94.3	1.50991	142.477
91.8	1.49219	137.073	94.4	1.51063	142.695
91.9	1.49290	137.287	94.5	1.51134	142.914
92.0	1.49360	137.501	94.6	1.51205	143.132
92.1	1.49431	137.716	94.7	1.51277	143.351
92.2	1.49501	137.930	94.8	1.51348	143.570
92.3	1.49572	138.145	94.9	1.51419	143.789
92.4	1.49643	138.360	95.0	1.51491	144.009
92.5	1.49713	138.575			

ICUMSA (1998). Table A, Appendix 1. *ICUMSA Methods Book*, SPS-4: 6 - 12.

Table 4: Mass per unit volume of pure sugar solutions at 20°C

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
0.0	0.000	5.0	0.050	10.0	0.103
0.1	0.001	5.1	0.051	10.1	0.104
0.2	0.002	5.2	0.052	10.2	0.105
0.3	0.003	5.3	0.053	10.3	0.106
0.4	0.004	5.4	0.054	10.4	0.108
0.5	0.005	5.5	0.056	10.5	0.109
0.6	0.006	5.6	0.057	10.6	0.110
0.7	0.007	5.7	0.058	10.7	0.111
0.8	0.008	5.8	0.059	10.8	0.112
0.9	0.009	5.9	0.060	10.9	0.113
1.0	0.010	6.0	0.061	11.0	0.114
1.1	0.011	6.1	0.062	11.1	0.115
1.2	0.012	6.2	0.063	11.2	0.116
1.3	0.013	6.3	0.064	11.3	0.117
1.4	0.014	6.4	0.065	11.4	0.118
1.5	0.015	6.5	0.066	11.5	0.119
1.6	0.016	6.6	0.067	11.6	0.121
1.7	0.017	6.7	0.068	11.7	0.122
1.8	0.018	6.8	0.069	11.8	0.123
1.9	0.019	6.9	0.070	11.9	0.124
2.0	0.020	7.0	0.071	12.0	0.124
2.1	0.021	7.1	0.072	12.1	0.125
2.2	0.022	7.2	0.073	12.2	0.126
2.3	0.023	7.3	0.074	12.3	0.127
2.4	0.024	7.4	0.118	12.4	0.129
2.5	0.025	7.5	0.118	12.5	0.130
2.6	0.026	7.6	0.078	12.6	0.131
2.7	0.027	7.7	0.079	12.7	0.132
2.8	0.028	7.8	0.080	12.8	0.133
2.9	0.029	7.9	0.081	12.9	0.134
3.0	0.030	8.0	0.082	13.0	0.135
3.1	0.031	8.1	0.083	13.1	0.136
3.2	0.032	8.2	0.084	13.2	0.137
3.3	0.032	8.3	0.085	13.3	0.138
3.4	0.034	8.4	0.086	13.4	0.140
3.5	0.035	8.5	0.087	13.5	0.141
3.6	0.036	8.6	0.088	13.6	0.142
3.7	0.037	8.7	0.089	13.7	0.143
3.8	0.038	8.8	0.090	13.8	0.144
3.9	0.039	8.9	0.091	13.9	0.145
4.0	0.040	9.0	0.092	14.0	0.146
4.1	0.041	9.1	0.094	14.1	11.147
4.2	0.042	9.2	0.005	14.2	0.148
4.3	0.043	9.3	0.006	14.3	0.150
4.4	0.044	9.4	0.007	14.4	0.151
4.5	0.045	9.5	0.008	14.5	0.152
4.6	0.046	9.6	0.009	14.6	0.153
4.7	0.047	9.7	0.010	14.7	0.154
4.8	0.048	9.8	0.101	14.8	0.155
4.9	0.049	9.9	0.102	14.9	0.156

SASTA (1985). *Laboratory Manual for South African Sugar Factories*. 3rd Edition: 404 - 410.

Table 4: Mass per unit volume of pure sugar solutions at 20°C (continued)

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
15.0	0.157	20.0	0.215	25.0	0.275
15.1	0.159	20.1	0.216	25.1	0.276
15.2	0.160	20.2	0.217	25.2	0.278
15.3	0.161	20.3	0.218	25.3	0.279
15.4	0.162	20.4	0.219	25.4	0.280
15.5	0.163	20.5	0.221	25.5	0.281
15.6	0.164	20.6	0.222	25.6	0.282
15.7	0.165	20.7	0.223	25.7	0.284
15.8	0.166	20.8	0.224	25.8	0.285
15.9	0.168	20.9	0.225	25.9	0.286
16.0	0.169	21.0	0.226	26.0	0.287
16.1	0.170	21.1	0.228	26.1	0.289
16.2	0.171	21.2	0.229	26.2	0.290
16.3	0.172	21.3	0.230	26.3	0.291
16.4	0.173	21.4	0.231	26.4	0.292
16.5	0.174	21.5	0.232	26.5	0.293
16.6	0.175	21.6	0.233	26.6	0.295
16.7	0.177	21.7	0.235	26.7	0.296
16.8	0.178	21.8	0.236	26.8	0.297
16.9	0.179	21.9	0.237	26.9	0.298
17.0	0.180	22.0	0.238	27.0	0.300
17.1	0.181	22.1	0.239	27.1	0.301
17.2	0.182	22.2	0.241	27.2	0.302
17.3	0.183	22.3	0.242	27.3	0.303
17.4	0.185	22.4	0.243	27.4	0.305
17.5	0.186	22.5	0.244	27.5	0.306
17.6	0.187	22.6	0.245	27.6	0.307
17.7	0.188	22.7	0.247	27.7	0.308
17.8	0.189	22.8	0.248	27.8	0.310
17.9	0.190	22.9	0.249	27.9	0.311
18.0	0.191	23.0	0.250	28.0	0.312
18.1	0.193	23.1	0.251	28.1	0.313
18.2	0.194	23.2	0.253	28.2	0.315
18.3	0.195	23.3	0.254	28.3	0.316
18.4	0.196	23.4	0.255	28.4	0.317
18.5	0.197	23.5	0.256	28.5	0.318
18.6	0.198	23.6	0.257	28.6	0.320
18.7	0.200	23.7	0.259	28.7	0.321
18.8	0.201	23.8	0.260	28.8	0.322
18.9	0.202	23.9	0.261	28.9	0.323
19.0	0.203	24.0	0.263	29.0	0.325
19.1	0.204	24.1	0.264	29.1	0.326
19.2	0.205	24.2	0.265	29.2	0.327
19.3	0.206	24.3	0.267	29.3	0.328
19.4	0.208	24.4	0.268	29.4	0.330
19.5	0.209	24.5	0.269	29.5	0.331
19.6	0.210	24.6	0.270	29.6	0.332
19.7	0.211	24.7	0.271	29.7	0.333
19.8	0.212	24.8	0.273	29.8	0.335
19.9	0.213	24.9	0.274	29.9	0.336

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Table 4: Mass per unit volume of pure sugar solutions at 20°C (continued)

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
30.0	0.337	35.0	0.402	40.0	0.470
30.1	0.339	35.1	0.403	40.1	0.471
30.2	0.340	35.2	0.405	40.2	0.472
30.3	0.341	35.3	0.406	40.3	0.474
30.4	0.342	35.4	0.407	40.4	0.475
30.5	0.344	35.5	0.409	40.5	0.477
30.6	0.345	35.6	0.410	40.6	0.478
30.7	0.346	35.7	0.411	40.7	0.479
30.8	0.347	35.8	0.413	40.8	0.481
30.9	0.349	35.9	0.414	40.9	0.482
31.0	0.350	36.0	0.415	41.0	0.484
31.1	0.351	36.1	0.417	41.1	0.485
31.2	0.353	36.2	0.418	41.2	0.486
31.3	0.354	36.3	0.419	41.3	0.488
31.4	0.355	36.4	0.421	41.4	0.489
31.5	0.356	36.5	0.422	41.5	0.490
31.6	0.358	36.6	0.423	41.6	0.492
31.7	0.359	36.7	0.425	41.7	0.493
31.8	0.360	36.8	0.426	41.8	0.495
31.9	0.362	36.9	0.427	41.9	0.496
32.0	0.363	37.0	0.429	42.0	0.497
32.1	0.364	37.1	0.430	42.1	0.499
32.2	0.365	37.2	0.431	42.2	0.500
32.3	0.367	37.3	0.433	42.3	0.502
32.4	0.368	37.4	0.434	42.4	0.503
32.5	0.369	37.5	0.435	42.5	0.505
32.6	0.371	37.6	0.437	42.6	0.506
32.7	0.372	37.7	0.438	42.7	0.507
32.8	0.373	37.8	0.440	42.8	0.509
32.9	0.375	37.9	0.441	42.9	0.510
33.0	0.376	38.0	0.442	43.0	0.512
33.1	0.377	38.1	0.444	43.1	0.513
33.2	0.378	38.2	0.445	43.2	0.514
33.3	0.380	38.3	0.446	43.3	0.516
33.4	0.381	38.4	0.448	43.4	0.517
33.5	0.382	38.5	0.449	43.5	0.519
33.6	0.384	38.6	0.450	43.6	0.520
33.7	0.385	38.7	0.452	43.7	0.522
33.8	0.386	38.8	0.453	43.8	0.523
33.9	0.388	38.9	0.455	43.9	0.524
34.0	0.389	39.0	0.456	44.0	0.526
34.1	0.390	39.1	0.457	44.1	0.527
34.2	0.392	39.2	0.459	44.2	0.529
34.3	0.393	39.3	0.460	44.3	0.530
34.4	0.394	39.4	0.461	44.4	0.532
34.5	0.395	39.5	0.463	44.5	0.533
34.6	0.397	39.6	0.464	44.6	0.534
34.7	0.398	39.7	0.466	44.7	0.536
34.8	0.399	39.8	0.467	44.8	0.537
34.9	0.401	39.9	0.468	44.9	0.539

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Table 4: Mass per unit volume of pure sugar solutions at 20°C (continued)

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
45.0	0.540	50.0	0.614	55.0	0.691
45.1	0.542	50.1	0.615	55.1	0.692
45.2	0.543	50.2	0.617	55.2	0.694
45.3	0.544	50.3	0.618	55.3	0.695
45.4	0.546	50.4	0.620	55.4	0.697
45.5	0.547	50.5	0.621	55.5	0.698
45.6	0.549	50.6	0.623	55.6	0.700
45.7	0.550	50.7	0.624	55.7	0.702
45.8	0.552	50.8	0.626	55.8	0.703
45.9	0.553	50.9	0.627	55.9	0.705
46.0	0.555	51.0	0.629	56.0	0.706
46.1	0.556	51.1	0.630	56.1	0.708
46.2	0.558	51.2	0.632	56.2	0.710
46.3	0.559	51.3	0.633	56.3	0.711
46.4	0.560	51.4	0.635	56.4	0.713
46.5	0.562	51.5	0.636	56.5	0.714
46.6	0.563	51.6	0.638	56.6	0.716
46.7	0.565	51.7	0.640	56.7	0.717
46.8	0.566	51.8	0.641	56.8	0.719
46.9	0.568	51.9	0.643	56.9	0.721
47.0	0.569	52.0	0.644	57.0	0.722
47.1	0.571	52.1	0.646	57.1	0.724
47.2	0.572	52.2	0.647	57.2	0.725
47.3	0.574	52.3	0.649	57.3	0.727
47.4	0.575	52.4	0.650	57.4	0.729
47.5	0.577	52.5	0.652	57.5	0.730
47.6	0.578	52.6	0.653	57.6	0.732
47.7	0.579	52.7	0.655	57.7	0.733
47.8	0.581	52.8	0.656	57.8	0.735
47.9	0.582	52.9	0.658	57.9	0.737
48.0	0.584	53.0	0.659	58.0	0.738
48.1	0.585	53.1	0.661	58.1	0.740
48.2	0.587	53.2	0.663	58.2	0.741
48.3	0.588	53.3	0.664	58.3	0.743
48.4	0.590	53.4	0.666	58.4	0.745
48.5	0.591	53.5	0.667	58.5	0.746
48.6	0.593	53.6	0.669	58.6	0.748
48.7	0.594	53.7	0.670	58.7	0.750
48.8	0.596	53.8	0.672	58.8	0.751
48.9	0.597	53.9	0.673	58.9	0.753
49.0	0.599	54.0	0.675	59.0	0.754
49.1	0.600	54.1	0.677	59.1	0.756
49.2	0.602	54.2	0.678	59.2	0.758
49.3	0.603	54.3	0.680	59.3	0.759
49.4	0.605	54.4	0.681	59.4	0.761
49.5	0.606	54.5	0.683	59.5	0.763
49.6	0.608	54.6	0.684	59.6	0.764
49.7	0.609	54.7	0.686	59.7	0.766
49.8	0.611	54.8	0.687	59.8	0.767
49.9	0.612	54.9	0.689	59.9	0.769

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Table 4: Mass per unit volume of pure sugar solutions at 20°C (continued)

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
60.0	0.771	65.0	0.854	70.0	0.942
60.1	0.772	65.1	0.856	70.1	0.944
60.2	0.774	65.2	0.858	70.2	0.945
60.3	0.776	65.3	0.860	70.3	0.947
60.4	0.777	65.4	0.861	70.4	0.949
60.5	0.779	65.5	0.863	70.5	0.951
60.6	0.781	65.6	0.865	70.6	0.953
60.7	0.782	65.7	0.866	70.7	0.954
60.8	0.784	65.8	0.868	70.8	0.956
60.9	0.786	65.9	0.870	70.9	0.958
61.0	0.787	66.0	0.872	71.0	0.960
61.1	0.789	66.1	0.873	71.1	0.961
61.2	0.791	66.2	0.875	71.2	0.963
61.3	0.792	66.3	0.877	71.3	0.965
61.4	0.794	66.4	0.879	71.4	0.967
61.5	0.795	66.5	0.880	71.5	0.969
61.6	0.797	66.6	0.882	71.6	0.971
61.7	0.799	66.7	0.884	71.7	0.972
61.8	0.800	66.8	0.885	71.8	0.974
61.9	0.802	66.9	0.887	71.9	0.976
62.0	0.804	67.0	0.889	72.0	0.978
62.1	0.805	67.1	0.891	72.1	0.980
62.2	0.807	67.2	0.892	72.2	0.981
62.3	0.809	67.3	0.894	72.3	0.983
62.4	0.810	67.4	0.896	72.4	0.985
62.5	0.812	67.5	0.898	72.5	0.987
62.6	0.814	67.6	0.899	72.6	0.989
62.7	0.816	67.7	0.900	72.7	0.991
62.8	0.817	67.8	0.903	72.8	0.992
62.9	0.819	67.9	0.905	72.9	0.994
63.0	0.821	68.0	0.906	73.0	0.996
63.1	0.822	68.1	0.908	73.1	0.998
63.2	0.824	68.2	0.910	73.2	1.000
63.3	0.826	68.3	0.912	73.3	1.002
63.4	0.827	68.4	0.913	73.4	1.003
63.5	0.829	68.5	0.915	73.5	1.005
63.6	0.831	68.6	0.917	73.6	1.007
63.7	0.832	68.7	0.919	73.7	1.009
63.8	0.834	68.8	0.920	73.8	1.011
63.9	0.836	68.9	0.922	73.9	1.013
64.0	0.837	69.0	0.924	74.0	1.014
64.1	0.839	69.1	0.926	74.1	1.016
64.2	0.841	69.2	0.928	74.2	1.018
64.3	0.843	69.3	0.929	74.3	1.020
64.4	0.844	69.4	0.931	74.4	1.022
64.5	0.846	69.5	0.933	74.5	1.024
64.6	0.848	69.6	0.935	74.6	1.026
64.7	0.849	69.7	0.936	74.7	1.027
64.8	0.851	69.8	0.938	74.8	1.029
64.9	0.853	69.9	0.940	74.9	1.031

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Table 4: Mass per unit volume of pure sugar solutions at 20°C (continued)

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
75.0	1.033	80.0	1.128	85.0	1.227
75.1	1.035	80.1	1.130	85.1	1.229
75.2	1.037	80.2	1.132	85.2	1.231
75.3	1.039	80.3	1.134	85.3	1.233
75.4	1.040	80.4	1.136	85.4	1.235
75.5	1.042	80.5	1.138	85.5	1.237
75.6	1.044	80.6	1.140	85.6	1.239
75.7	1.046	80.7	1.142	85.7	1.241
75.8	1.048	80.8	1.144	85.8	1.243
75.9	1.050	80.9	1.146	85.9	1.246
76.0	1.052	81.0	1.148	86.0	1.248
76.1	1.054	81.1	1.149	86.1	1.250
76.2	1.055	81.2	1.151	86.2	1.252
76.3	1.057	81.3	1.153	86.3	1.254
76.4	1.059	81.4	1.155	86.4	1.256
76.5	1.061	81.5	1.157	86.5	1.258
76.6	1.063	81.6	1.159	86.6	1.260
76.7	1.065	81.7	1.161	86.7	1.262
76.8	1.067	81.8	1.163	86.8	1.264
76.9	1.069	81.9	1.165	86.9	1.266
77.0	1.071	82.0	1.167	87.0	1.268
77.1	1.072	82.1	1.169	87.1	1.270
77.2	1.074	82.2	1.171	87.2	1.272
77.3	1.076	82.3	1.173	87.3	1.274
77.4	1.078	82.4	1.175	87.4	1.276
77.5	1.080	82.5	1.177	87.5	1.278
77.6	1.082	82.6	1.179	87.6	1.280
77.7	1.084	82.7	1.181	87.7	1.282
77.8	1.086	82.8	1.183	87.8	1.285
77.9	1.088	82.9	1.185	87.9	1.287
78.0	1.090	83.0	1.187	88.0	1.289
78.1	1.091	83.1	1.189	88.1	1.291
78.2	1.093	83.2	1.191	88.2	1.293
78.3	1.095	83.3	1.193	88.3	1.295
78.4	1.097	83.4	1.195	88.4	1.297
78.5	1.099	83.5	1.197	88.5	1.299
78.6	1.101	83.6	1.199	88.6	1.301
78.7	1.103	83.7	1.201	88.7	1.303
78.8	1.105	83.8	1.203	88.8	1.305
78.9	1.107	83.9	1.205	88.9	1.307
79.0	1.109	84.0	1.207	89.0	1.310
79.1	1.111	84.1	1.209	89.1	1.312
79.2	1.113	84.2	1.211	89.2	1.314
79.3	1.114	84.3	1.213	89.3	1.316
79.4	1.116	84.4	1.215	89.4	1.318
79.5	1.118	84.5	1.217	89.5	1.320
79.6	1.120	84.6	1.219	89.6	1.322
79.7	1.122	84.7	1.221	89.7	1.324
79.8	1.124	84.8	1.223	89.8	1.326
79.9	1.126	84.9	1.225	89.9	1.328

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Table 4: Mass per unit volume of pure sugar solutions at 20°C (continued)

Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)	Brix (%)	Mass per unit volume (Tons Brix/m³)
90.0	1.331	96.8	1.478	98.0	1.505
90.1	1.333	96.9	1.480	98.1	1.507
90.2	1.335	97.0	1.483	98.2	1.509
90.3	1.337	97.1	1.485	98.3	1.512
90.4	1.339	97.2	1.487	98.4	1.514
90.5	1.341	97.3	1.489	98.5	1.516
90.6	1.343	94.0	1.416	98.6	1.518
90.7	1.345	94.1	1.419	98.7	1.521
90.8	1.347	94.2	1.421	98.8	1.523
90.9	1.350	94.3	1.423	98.9	1.525
91.0	1.352	94.4	1.425	99.0	1.528
91.1	1.354	94.5	1.427	99.1	1.530
91.2	1.356	94.6	1.429	99.2	1.532
91.3	1.358	94.7	1.432	99.3	1.534
91.4	1.360	94.8	1.434	99.4	1.537
91.5	1.362	94.9	1.436	99.5	1.539
91.6	1.365	95.0	1.438	99.6	1.541
91.7	1.367	95.1	1.440	99.7	1.543
91.8	1.369	95.2	1.443	99.8	1.546
91.9	1.371	95.3	1.445	99.9	1.548
92.0	1.373	95.4	1.447	100.0	1.550
92.1	1.375	95.5	1.449		
92.2	1.377	95.6	1.451		
92.3	1.380	95.7	1.454		
92.4	1.382	95.8	1.456		
92.5	1.384	95.9	1.458		
92.6	1.386	96.0	1.460		
92.7	1.388	96.1	1.463		
92.8	1.390	96.2	1.465		
92.9	1.392	96.3	1.467		
93.0	1.395	96.4	1.469		
93.1	1.397	96.5	1.471		
93.2	1.399	96.6	1.474		
93.3	1.401	96.7	1.476		
93.4	1.403	97.4	1.491		
93.5	1.405	97.5	1.494		
93.6	1.408	97.6	1.496		
93.7	1.410	97.7	1.498		
93.8	1.412	97.8	1.500		
93.9	1.414	97.9	1.503		

SASTA (1985). *Laboratory Manual for South African Sugar Factories*. 3rd Edition: 404 - 410.