Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

"जानने का अधिकार, जीने का अधिकार"
Mazdoor Kisan Shakti Sangathan
"The Right to Information, The Right to Live"
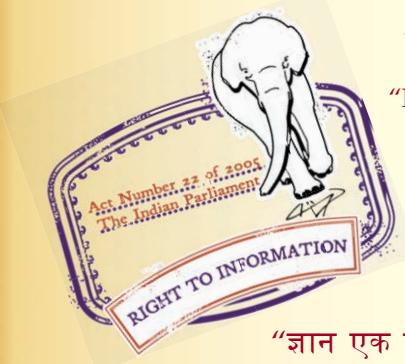
"पुराने को छोड़ नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 4048 (1989): Density composition tables for aqueous solutions of sulphuric acid [CHD 1: Inorganic Chemicals]

"ज्ञान से एक नये भारत का निर्माण"
Satyanarayan Gangaram Pitroda
"Invent a New India Using Knowledge"

"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

BLANK PAGE

भारतीय मानक

सल्फ्यूरिक अम्ल के जलीय विलयनों की घनत्व-संघटन तारणियां — विशिष्टि

(पहला पुनरीक्षण)

Indian Standard

DENSITY-COMPOSITION TABLES FOR AQUEOUS SOLUTIONS OF SULPHURIC ACID — SPECIFICATION

(First Revision)

First Reprint AUGUST 1995

UDC   531 756 (083) : 546·226-325

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards on 30 September 1989, after the draft finalized by the Chemical Standards Sectional Committee had been approved by the Chemical Division Council.

This standard was first published in 1966 and was based on BS 753 : 1959 'Specification for density-composition tables for aqueous solutions of sulphuric acid'. The values of the density given at the time were in terms of g/ml. Subsequently with the adoption of SI units, it was felt necessary to give density value in terms of kg/m³. This led to publication of this revised edition of the standard. It may be mentioned that the British Standards Institution has also since revised its standard in 1987.

In this revision, the significant modification made in Table 1 includes the changeover to density value of aqueous solutions in terms of kg/m³. Tables 2 to 7 have also been modified. Table 3 has been modified to give the correction on account of surface tension with reference to density of the solution at 27°C instead of strength of the solution in g/100 g.

The density-composition tables provide a simple means of determining the strength of any aqueous solution of sulphuric acid or of making a solution of specific strength. The underlying principle in the preparation of these tables is that density is a function of the composition of aqueous sulphuric acid solutions. By using a density hydrometer or from the density determined at any particular temperature within the range of the tables, composition of the solution can be determined. The density-composition table is based on data obtained from the International Critical Tables 1928 still authoritative and related to mass, not to apparent mass in air.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance, with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

DENSITY-COMPOSITION TABLES FOR AQUEOUS SOLUTIONS OF SULPHURIC ACID — SPECIFICATION

(First Revision)

1 SCOPE

1.1 This standard furnishes tables which correlate density with composition of aqueous solutions of sulphuric acid. It is intended to assist in determining the strength of an aqueous solution of sulphuric acid of known density and in preparing solutions of specific strength.

2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
3104 (Part 1) : 1982	Specification for density hydrometers : Part 1 Requirements (*first revision*)
3104 (Part 2) : 1982	Specification for density hydrometers : Part 2 Methods of test and use (*first revision*)

3 DENSITY-COMPOSITION TABLE FOR AQUEOUS SOLUTIONS OF SULPHURIC ACID (TABLE 1)

3.1 Abbreviations

For the purpose of this standard, the following abbreviations shall apply:

D_t = density of the aqueous solutions of sulphuric acid in kg/m³ at a temperature t.

g = mass in grams of sulphuric acid in 100 g of the aqueous solution.

G = mass in g of sulphuric acid in a quantity of the aqueous solution occupying one litre at temperature t.

3.2 The table gives the values of g and G for densities of sulphuric acid solutions at various temperatures between 10°C and 40°C.

3.3 Table 1 has been so prepared that the density D_t increases by steps of 1 kg/m³ (0·001 g/ml) and the corresponding values of g and G have been given for each 2°C over the range 10 to 40°C.

3.4 Two values of g and two of G between D_t = 1 811 kg/m³ and D_t = 1 846 kg/m³ are given against certain values of D_t. This is necessary because the density of mixtures of sulphuric acid and water attains a maximum value at a concentration of approximately 97 g of sulphuric acid in 100 g of solution. Hence, over a small range on each side of the maximum, there are two possible concentrations for each particular density. Both values are given in Table 1, the values for the less concentrated solution being given in light type and those for the more concentrated solution in bold type. To find the actual value under the circumstances, procedure outlined in **B-1.2** shall be followed.

3.5 Corrections to be applied for greater accuracy are given in Annex A.

3.6 Examples of the use of the density-composition tables in conjunction with hydrometers are given in Annex B.

3.7 Determination of D_t from Table 1

The method of obtaining density of solutions of sulphuric acid of known strength is given in Annex C.

3.8 Choice of Hydrometers

Recommendations as to the choice of suitable hydrometers for use in conjunction with these tables are given in Annex D. To avoid error in visual of the scales of the hydrometers and to apply the corrections given in Annex A with best advantage, density hydrometers shall be used in overflow vessels as recommended in IS 3104 (Part 2) : 1982.

Table 1 Density-Composition Table for Aqueous Solutions of Sulphuric Acid

(*Clauses* 3, 3.3, 3.4, 3.7, A-1.1. 3.4, B-3.1 *and* C-2.1)

t	10°C		12°C		14°C		16°C		18°C		20°C		22°C		24°C		26°C		28°C		30°C		32°C		34°C		36°C		38°C		40°C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1000	0·0	0	0·1	1	0·1	1	0·1	1	0·2	2	0·3	3	0·3	3	0·4	4	0·5	5	0·6	6	0·7	7	0·8	8	0·9	9	1·0	10	1·1	11	1·2	12	1000
1001	0·2	2	0·2	2	0·2	3	0·3	3	0·3	3	0·4	4	0·5	5	0·5	6	0·6	6	0·7	7	0·8	8	0·9	9	1·0	10	1·1	12	1·3	13	1·4	14	1001
1002	0·3	3	0·3	4	0·4	4	0·4	4	0·5	5	0·6	6	0·6	6	0·7	7	0·8	8	0·8	9	0·9	9	1·0	10	1·1	11	1·2	12	1·3	13	1·5	15	1002
1003	0·5	5	0·5	5	0·5	5	0·6	6	0·6	6	0·7	7	0·8	8	0·8	9	0·9	9	1·0	10	1·1	11	1·2	12	1·3	14	1·5	15	1·6	16	1·7	17	1003
1004	0·6	6	0·6	6	0·7	7	0·7	7	0·8	8	0·8	8	0·9	9	1·0	10	1·1	11	1·2	12	1·3	13	1·4	14	1·5	15	1·6	16	1·7	17	1·8	18	1004
1005	0·7	8	0·8	8	0·8	8	0·9	9	0·9	9	1·0	10	1·1	11	1·1	11	1·2	12	1·3	13	1·3	14	1·4	14	1·5	15	1·7	17	1·9	19	2·0	20	1005
1006	0·9	9	0·9	9	1·0	10	1·0	10	1·1	11	1·1	11	1·2	12	1·3	13	1·4	14	1·5	15	1·6	16	1·7	17	1·8	18	1·9	19	2·0	20	2·2	22	1006
1007	1·0	10	1·1	11	1·1	11	1·2	12	1·2	12	1·3	13	1·4	14	1·4	14	1·5	15	1·6	16	1·7	17	1·8	19	2·0	20	2·1	21	2·2	22	2·3	22	1007
1008	1·2	12	1·2	12	1·3	13	1·3	13	1·4	14	1·4	14	1·5	15	1·6	16	1·7	17	1·8	17	1·9	19	2·0	20	2·1	21	2·2	22	2·4	24	2·5	25	1008
1009	1·3	13	1·3	14	1·4	14	1·5	15	1·5	15	1·6	16	1·7	17	1·7	18	1·8	18	1·9	20	2·0	21	2·2	22	2·3	23	2·4	24	2·5	25	2·6	27	1009
1010	1·5	15	1·5	15	1·5	16	1·6	16	1·7	17	1·7	17	1·8	18	1·9	19	2·0	20	2·1	21	2·2	22	2·3	23	2·4	25	2·5	26	2·7	27	2·8	28	1010
1011	1·6	16	1·6	17	1·7	17	1·8	18	1·8	18	1·9	19	2·0	20	2·1	21	2·1	22	2·2	23	2·4	24	2·5	25	2·6	26	2·7	27	2·8	29	3·0	30	1011
1012	1·7	18	1·8	18	1·8	19	1·9	19	2·0	20	2·0	21	2·1	21	2·2	22	2·3	23	2·4	24	2·5	25	2·6	27	2·7	28	2·9	29	3·0	30	3·1	31	1012
1013	1·9	19	1·9	20	2·0	20	2·0	21	2·1	21	2·2	22	2·3	23	2·4	24	2·5	25	2·6	26	2·7	27	2·8	28	2·9	29	3·0	31	3·1	32	3·3	33	1013
1014	2·0	21	2·1	21	2·1	22	2·2	22	2·3	23	2·3	24	2·4	24	2·5	25	2·6	26	2·7	27	2·8	28	2·9	29	3·0	31	3·2	32	3·3	33	3·4	35	1014
1015	2·2	22	2·2	23	2·3	23	2·3	24	2·4	24	2·5	25	2·6	26	2·7	27	2·8	28	2·9	29	3·0	30	3·1	31	3·2	32	3·3	34	3·5	35	3·6	36	1015
1016	2·3	24	2·4	24	2·4	25	2·5	25	2·6	26	2·6	27	2·7	28	2·8	29	2·9	30	3·0	31	3·1	31	3·3	33	3·4	34	3·6	35	3·6	37	3·7	38	1016
1017	2·5	25	2·5	26	2·6	26	2·6	27	2·7	28	2·8	28	2·9	29	3·0	30	3·1	31	3·2	31	3·3	33	3·4	33	3·5	35	3·7	36	3·8	38	3·9	40	1017
1018	2·6	27	2·7	27	2·7	28	2·8	28	2·9	29	2·9	30	3·0	31	3·1	32	3·2	33	3·3	34	3·4	35	3·6	36	3·7	37	3·8	39	3·9	40	4·1	41	1018
1019	2·8	28	2·8	29	2·9	29	2·9	30	3·0	31	3·1	31	3·2	32	3·3	33	3·4	34	3·5	35	3·6	37	3·7	38	3·8	39	4·0	40	4·1	42	4·2	43	1019
1020	2·9	30	3·0	30	3·0	31	3·1	32	3·2	32	3·2	33	3·3	34	3·4	35	3·5	36	3·6	37	3·8	38	3·9	40	4·0	41	4·2	42	4·4	43	4·4	45	1020
1021	3·1	31	3·1	32	3·2	32	3·2	33	3·3	34	3·4	35	3·5	36	3·6	37	3·7	38	3·8	38	3·9	39	4·0	40	4·2	41	4·3	42	4·4	44	4·5	46	1021
1022	3·2	33	3·3	33	3·3	34	3·4	35	3·5	35	3·5	36	3·6	37	3·7	38	3·8	38	4·0	40	4·1	41	4·2	43	4·3	44	4·4	45	4·6	47	4·7	48	1022
1023	3·4	34	3·4	35	3·5	35	3·5	36	3·6	37	3·7	38	3·8	39	3·9	40	4·0	41	4·1	42	4·2	43	4·3	44	4·5	46	4·6	47	4·7	48	4·8	50	1023
1024	3·5	36	3·6	36	3·6	37	3·7	38	3·8	39	3·8	39	3·9	40	4·0	41	4·2	43	4·3	44	4·4	45	4·5	46	4·6	47	4·7	48	4·9	49	5·0	51	1024
1025	3·6	37	3·7	38	3·8	39	3·8	39	3·9	40	4·0	41	4·1	42	4·2	43	4·3	44	4·4	45	4·5	46	4·7	48	4·8	49	4·9	49	5·0	51	5·2	53	1025
1026	3·8	39	3·8	40	3·9	40	4·0	41	4·1	42	4·2	43	4·2	44	4·4	45	4·5	46	4·6	47	4·7	47	4·8	48	4·9	49	5·0	50	5·2	52	5·3	54	1026
1027	3·9	40	4·0	41	4·1	42	4·1	42	4·2	43	4·3	44	4·4	45	4·5	46	4·6	47	4·7	48	4·8	50	5·0	51	5·1	52	5·2	54	5·3	55	5·5	56	1027
1028	4·1	42	4·1	43	4·2	43	4·3	44	4·4	45	4·4	46	4·5	47	4·7	48	4·8	49	4·9	50	5·0	51	5·1	53	5·2	54	5·4	55	5·5	56	5·6	58	1028
1029	4·2	43	4·3	44	4·4	45	4·4	46	4·5	46	4·6	47	4·7	48	4·8	49	4·9	51	5·0	53	5·1	53	5·3	54	5·4	55	5·5	57	5·6	58	5·8	59	1029
1030	4·4	45	4·4	46	4·5	46	4·6	47	4·7	48	4·7	49	4·9	50	5·0	51	5·1	52	5·2	53	5·3	54	5·4	56	5·5	57	5·7	57	5·8	58	5·9	61	1030
1031	4·5	46	4·6	47	4·6	48	4·7	49	4·8	49	4·9	51	5·0	52	5·1	53	5·2	54	5·3	55	5·4	56	5·6	57	5·7	58	5·8	59	6·1	61	6·1	63	1031
1032	4·7	48	4·7	49	4·8	49	4·9	50	5·0	51	5·0	52	5·1	53	5·3	54	5·4	56	5·5	55	5·6	56	5·7	58	5·8	57	6·0	60	6·1	62	6·2	64	1032

Table 1 (*Continued*)

t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1033	4·8	50	4·9	50	4·9	51	5·0	52	5·1	53	5·2	54	5·3	55	5·4	56	5·5	57	5·6	58	5·7	59	5·9	61	6·0	62	6·1	63	6·2	65	6·4	66	1033
1034	4·9	51	5·0	52	5·1	53	5·2	53	5·2	54	5·3	55	5·4	56	5·5	57	5·7	59	5·8	60	5·9	61	6·0	62	6·1	63	6·3	65	6·4	66	6·5	68	1034
1035	5·1	53	5·2	53	5·2	54	5·3	55	5·4	56	5·5	57	5·6	58	5·7	59	5·8	60	5·9	61	6·0	63	6·2	64	6·3	65	6·4	66	6·6	68	6·7	69	1035
1036	5·2	54	5·3	55	5·4	56	5·5	57	5·5	57	5·6	58	5·7	59	5·8	61	6·0	62	6·1	63	6·2	64	6·3	65	6·4	66	6·6	68	6·7	69	6·8	71	1036
1037	5·4	56	5·5	57	5·5	57	5·6	58	5·7	59	5·8	60	5·9	61	6·0	62	6·1	63	6·2	64	6·3	66	6·5	67	6·6	68	6·7	70	6·9	71	7·0	72	1037
1038	5·5	57	5·6	58	5·7	59	5·8	60	5·8	61	5·9	62	6·0	63	6·1	64	6·3	65	6·4	66	6·5	67	6·6	69	6·7	70	6·9	71	7·0	73	7·1	74	1038
1039	5·7	59	5·7	60	5·8	60	5·9	61	6·0	62	6·1	63	6·2	64	6·3	65	6·4	66	6·5	68	6·6	69	6·8	70	6·9	71	7·0	73	7·2	74	7·3	76	1039
1040	5·8	60	5·9	61	6·0	62	6·0	63	6·1	64	6·2	65	6·3	66	6·4	67	6·6	68	6·7	69	6·8	71	6·9	72	7·0	73	7·2	75	7·3	76	7·4	77	1040
1041	5·9	62	6·0	63	6·1	64	6·2	64	6·3	65	6·4	66	6·5	67	6·6	68	6·7	70	6·8	71	6·9	72	7·1	73	7·2	75	7·3	76	7·5	78	7·6	79	1041
1042	6·1	63	6·2	64	6·2	65	6·3	66	6·4	67	6·5	68	6·6	69	6·7	70	6·9	71	7·0	73	7·1	74	7·2	75	7·3	76	7·5	78	7·6	79	7·7	81	1042
1043	6·2	65	6·3	66	6·4	67	6·5	68	6·6	68	6·7	69	6·8	71	6·9	72	7·0	73	7·1	74	7·2	76	7·4	77	7·5	78	7·6	79	7·8	81	7·9	82	1043
1044	6·4	67	6·5	67	6·5	68	6·6	69	6·7	70	6·8	71	6·9	72	7·0	73	7·1	75	7·3	76	7·4	77	7·5	78	7·6	80	7·8	81	7·9	83	8·0	84	1044
1045	6·5	68	6·6	69	6·7	70	6·8	71	6·9	72	7·0	73	7·1	74	7·2	75	7·3	76	7·4	77	7·5	79	7·7	80	7·8	81	7·9	83	8·1	84	8·2	86	1045
1046	6·7	70	6·7	71	6·8	71	6·9	72	7·0	73	7·1	74	7·2	76	7·3	77	7·4	78	7·6	79	7·7	80	7·8	82	7·9	83	8·1	84	8·2	86	8·4	87	1046
1047	6·8	71	6·9	72	7·0	73	7·1	74	7·1	75	7·2	76	7·4	77	7·5	78	7·6	79	7·7	81	7·8	82	8·0	83	8·1	85	8·2	86	8·4	88	8·5	89	1047
1048	6·9	73	7·0	74	7·1	75	7·2	75	7·3	76	7·4	77	7·5	79	7·6	80	7·7	81	7·9	82	8·0	84	8·1	85	8·2	86	8·4	88	8·5	89	8·7	91	1048
1049	7·1	74	7·2	75	7·3	76	7·3	77	7·4	78	7·5	79	7·7	80	7·8	81	7·9	83	8·0	84	8·1	85	8·3	87	8·4	88	3·5	89	8·7	91	8·8	92	1049
1050	7·2	76	7·3	77	7·4	78	7·5	79	7·6	80	7·7	81	7·8	82	7·9	83	8·0	84	8·1	86	8·3	87	8·4	88	8·5	90	8·7	91	8·8	93	9·0	94	1050
1051	7·4	77	7·5	78	7·5	79	7·6	80	7·7	81	7·8	82	7·9	83	8·1	85	8·2	86	8·3	87	8·4	89	8·6	90	8·7	91	8·8	93	9·0	94	9·1	96	1051
1052	7·5	79	7·6	80	7·7	81	7·8	82	7·9	83	8·0	84	8·1	85	8·2	86	8·3	88	8·4	89	8·6	90	8·7	92	8·8	93	9·0	94	9·1	96	9·3	97	1052
1053	7·6	80	7·7	81	7·8	82	7·9	83	8·0	84	8·1	86	8·2	87	8·3	88	8·5	89	8·6	90	8·7	92	8·9	93	9·0	95	9·1	96	9·3	98	9·4	99	1053
1054	7·8	82	7·9	83	8·0	84	8·1	85	8·2	86	8·3	87	8·4	88	8·5	89	8·6	91	8·7	92	8·9	93	9·0	95	9·1	96	9·3	98	9·4	99	9·6	101	1054
1055	7·9	84	8·0	85	8·1	85	8·2	87	8·3	88	8·4	89	8·5	90	8·6	91	8·8	92	8·9	94	9·0	95	9·2	97	9·3	98	9·4	99	9·6	101	9·7	102	1055
1056	8·1	85	8·2	86	8·2	87	8·3	88	8·4	89	8·6	90	8·7	91	8·8	93	8·9	94	9·0	95	9·2	97	9·3	98	9·4	100	9·6	101	9·7	102	9·9	104	1056
1057	8·2	87	8·3	88	8·4	89	8·5	90	8·6	91	8·7	92	8·8	93	8·9	94	9·0	96	9·2	97	9·3	98	9·4	100	9·6	101	9·7	103	9·9	104	10·0	106	1057
1058	8·3	88	8·4	89	8·5	90	8·6	91	8·7	92	8·8	93	9·0	95	9·1	96	9·2	97	9·3	99	9·5	100	9·6	101	9·7	103	9·9	104	10·0	106	10·2	107	1058
1059	8·5	89	8·6	91	8·7	92	8·8	93	8·9	94	9·0	95	9·1	96	9·2	97	9·3	99	9·5	100	9·6	101	9·7	103	9·9	104	10·0	106	10·2	107	10·3	109	1059
1060	8·6	91	8·7	92	8·8	93	8·9	95	9·0	96	9·1	97	9·2	98	9·4	99	9·5	100	9·6	102	9·8	103	9·9	105	10·0	106	10·2	107	10·3	109	10·4	111	1060
1061	8·7	93	8·8	94	8·9	95	9·1	96	9·2	97	9·3	98	9·4	100	9·5	101	9·6	102	9·7	103	9·9	105	10·0	106	10·2	108	10·3	109	10·4	111	10·6	112	1061
1062	8·9	94	9·0	95	9·1	96	9·2	98	9·3	99	9·4	100	9·5	101	9·7	102	9·8	104	9·9	105	10·0	107	10·2	108	10·3	109	10·5	111	10·6	113	10·7	114	1062
1063	9·0	96	9·1	97	9·2	98	9·3	99	9·4	100	9·6	102	9·7	103	9·8	104	9·9	105	10·0	107	10·2	108	10·3	110	10·5	111	10·6	113	10·7	114	10·9	116	1063
1064	9·2	98	9·3	99	9·4	100	9·5	101	9·6	102	9·7	103	9·8	104	9·9	106	10·1	107	10·2	108	10·3	110	10·5	111	10·6	113	10·8	114	10·9	116	11·0	118	1064
1065	9·3	99	9·4	100	9·5	101	9·6	102	9·7	104	9·8	105	10·0	106	10·1	107	10·2	109	10·3	110	10·5	112	10·6	113	10·8	114	10·9	116	11·0	118	11·2	119	1065
1066	9·4	101	9·6	102	9·6	103	9·8	104	9·9	105	10·0	106	10·1	108	10·2	109	10·4	110	10·5	112	10·6	113	10·8	115	10·9	116	11·0	118	11·2	119	11·3	121	1066
1067	9·6	102	9·7	103	9·8	104	9·9	106	10·0	107	10·1	108	10·2	109	10·4	111	10·5	112	10·6	113	10·8	115	10·9	117	11·0	118	11·2	119	11·3	121	11·5	123	1067
1068	9·7	104	9·8	105	9·9	106	10·0	107	10·2	109	10·3	110	10·4	111	10·5	112	10·6	114	10·8	115	10·9	117	11·1	118	11·2	120	11·3	121	11·5	123	11·6	124	1068

Table 1 (Continued)

t	10 °C g	10 °C G	12 °C g	12 °C G	14 °C g	14 °C G	16 °C g	16 °C G	18 °C g	18 °C G	20 °C g	20 °C G	22 °C g	22 °C G	24 °C g	24 °C G	26 °C g	26 °C G	28 °C g	28 °C G	30 °C g	30 °C G	32 °C g	32 °C G	34 °C g	34 °C G	36 °C g	36 °C G	38 °C g	38 °C G	40 °C g	40 °C G	t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1069	9·9	105	10·0	107	10·1	108	10·2	109	10·3	110	10·4	111	10·5	113	10·7	114	10·8	115	10·9	117	11·1	118	11·2	120	11·3	121	11·5	123	11·6	124	11·8	126	1069
1070	10·0	107	10·1	108	10·2	109	10·3	110	10·4	112	10·6	113	10·7	114	10·8	116	10·9	117	11·1	118	11·2	120	11·3	121	11·5	123	11·6	124	11·8	126	11·9	128	1070
1071	10·1	109	10·3	110	10·3	111	10·5	112	10·6	113	10·7	115	10·8	116	10·9	117	11·1	119	11·2	120	11·3	121	11·5	123	11·6	125	11·8	126	11·9	128	12·1	129	1071
1072	10·3	110	10·4	111	10·5	112	10·6	114	10·7	115	10·8	116	11·0	117	11·1	119	11·2	120	11·3	122	11·5	123	11·6	125	11·8	126	11·9	128	12·1	129	12·2	131	1072
1073	10·4	112	10·5	113	10·6	114	10·7	115	10·9	117	11·0	118	11·1	119	11·2	120	11·4	122	11·5	123	11·6	125	11·8	126	11·9	128	12·1	129	12·2	131	12·4	133	1073
1074	10·6	113	10·7	114	10·8	116	10·9	117	11·0	118	11·1	120	11·2	121	11·4	122	11·5	123	11·6	125	11·8	126	11·9	128	12·1	130	12·2	131	12·4	133	12·5	134	1074
1075	10·7	115	10·8	116	10·9	117	11·0	118	11·1	120	11·3	121	11·4	122	11·5	124	11·6	125	11·8	127	11·9	128	12·1	130	12·2	131	12·4	133	12·5	134	12·7	136	1075
1076	10·8	116	10·9	118	11·0	119	11·2	120	11·3	121	11·4	123	11·5	124	11·6	125	11·8	127	11·9	128	12·1	130	12·2	131	12·3	133	12·5	134	12·6	136	12·8	138	1076
1077	11·0	118	11·1	119	11·2	120	11·3	122	11·4	123	11·6	124	11·7	126	11·8	127	11·9	128	12·1	130	12·2	131	12·3	133	12·5	135	12·6	136	12·8	138	12·9	139	1077
1078	11·1	120	11·2	121	11·3	122	11·4	123	11·6	125	11·7	126	11·8	127	11·9	129	12·1	130	12·2	132	12·3	133	12·5	135	12·6	136	12·8	138	12·9	139	13·1	141	1078
1079	11·2	121	11·4	122	11·5	124	11·6	125	11·7	126	11·8	128	11·9	129	12·1	130	12·2	132	12·3	133	12·5	135	12·6	136	12·8	138	12·9	140	13·1	141	13·2	143	1079
1080	11·4	123	11·5	125	11·6	125	11·7	127	11·8	128	12·0	129	12·1	130	12·2	132	12·3	133	12·5	135	12·6	136	12·8	138	12·9	140	13·1	141	13·2	143	13·4	144	1080
1081	11·5	124	11·6	126	11·7	127	11·9	128	12·0	130	12·1	131	12·2	132	12·4	134	12·5	135	12·6	137	12·8	138	12·9	140	13·1	141	13·2	143	13·4	144	13·5	146	1081
1082	11·6	126	11·8	127	11·9	129	12·0	130	12·1	131	12·3	133	12·4	134	12·5	135	12·6	137	12·8	138	12·9	140	13·1	141	13·2	143	13·4	144	13·5	146	13·7	148	1082
1083	11·8	128	11·9	129	12·0	130	12·1	131	12·3	133	12·4	134	12·5	135	12·6	137	12·8	138	12·9	140	13·1	141	13·2	143	13·4	145	13·5	146	13·6	148	13·8	149	1083
1084	11·9	129	12·0	131	12·1	132	12·3	133	12·4	134	12·5	136	12·6	137	12·8	139	12·9	140	13·1	142	13·2	143	13·3	145	13·5	146	13·6	148	13·8	149	13·9	151	1084
1085	12·1	131	12·2	132	12·3	133	12·4	135	12·5	136	12·7	137	12·8	139	12·9	140	13·1	142	13·2	143	13·3	145	13·5	146	13·6	148	13·8	149	13·9	151	14·1	153	1085
1086	12·2	132	12·3	134	12·4	135	12·5	136	12·7	138	12·8	139	12·9	140	13·1	142	13·2	143	13·3	145	13·5	146	13·6	148	13·8	150	13·9	151	14·1	153	14·2	155	1086
1087	12·3	134	12·4	135	12·6	137	12·7	138	12·8	139	12·9	141	13·1	142	13·2	143	13·3	145	13·5	146	13·6	148	13·8	150	13·9	151	14·1	153	14·2	154	14·4	156	1087
1088	12·5	136	12·6	137	12·7	138	12·8	139	12·9	141	13·1	142	13·2	144	13·3	145	13·5	147	13·6	148	13·8	150	13·9	151	14·1	153	14·2	154	14·4	156	14·5	158	1088
1089	12·6	137	12·7	138	12·8	140	13·0	141	13·1	142	13·2	144	13·3	145	13·5	147	13·6	148	13·8	150	13·9	151	14·0	153	14·2	155	14·3	156	14·5	158	14·7	160	1089
1090	12·7	139	12·9	140	13·0	141	13·1	143	13·2	144	13·4	146	13·5	147	13·6	148	13·7	150	13·9	151	14·0	153	14·2	155	14·3	156	14·5	158	14·6	160	14·8	161	1090
1091	12·9	140	13·0	142	13·1	143	13·2	144	13·4	146	13·5	147	13·6	149	13·7	150	13·9	152	14·0	153	14·2	155	14·3	156	14·5	158	14·6	160	14·8	161	14·9	163	1091
1092	13·0	142	13·1	143	13·2	145	13·4	146	13·5	147	13·6	149	13·8	150	13·9	152	14·0	153	14·2	155	14·3	156	14·5	158	14·6	160	14·8	161	14·9	163	15·1	165	1092
1093	13·1	144	13·3	145	13·4	146	13·5	148	13·6	149	13·8	151	13·9	152	14·0	153	14·2	155	14·3	156	14·5	158	14·6	160	14·8	161	14·9	163	15·1	165	15·2	166	1093
1094	13·3	145	13·4	146	13·5	148	13·6	149	13·8	151	13·9	152	14·0	154	14·2	155	14·3	157	14·5	158	14·6	160	14·7	161	14·9	163	15·1	165	15·2	166	15·4	168	1094
1095	13·4	147	13·5	148	13·6	149	13·8	151	13·9	152	14·0	154	14·2	155	14·3	157	14·4	158	14·6	160	14·7	162	14·9	163	15·0	165	15·2	167	15·4	168	15·5	170	1095
1096	13·5	148	13·7	150	13·8	151	13·9	153	14·0	154	14·2	155	14·3	157	14·4	158	14·6	160	14·7	161	14·9	163	15·0	165	15·2	166	15·3	168	15·5	170	15·6	172	1096
1097	13·7	150	13·8	151	13·9	153	14·1	154	14·2	155	14·3	157	14·5	159	14·6	160	14·7	161	14·9	163	15·0	165	15·2	166	15·3	168	15·5	170	15·6	171	15·8	173	1097
1098	13·8	152	13·9	153	14·1	154	14·2	156	14·3	157	14·5	159	14·6	160	14·7	162	14·9	163	15·0	165	15·2	167	15·3	168	15·5	170	15·6	172	15·8	173	15·9	175	1098
1099	13·9	153	14·1	155	14·2	156	14·3	157	14·5	159	14·6	160	14·7	162	14·9	163	15·0	165	15·2	166	15·3	168	15·4	170	15·6	171	15·8	173	15·9	175	16·1	177	1099
1100	14·1	155	14·2	156	14·3	158	14·5	159	14·6	160	14·7	162	14·9	163	15·0	165	15·1	167	15·3	168	15·4	170	15·6	171	15·7	173	15·9	175	16·1	177	16·2	178	1100
1101	14·2	156	14·3	158	14·5	159	14·6	161	14·7	162	14·9	164	15·0	165	15·1	167	15·3	168	15·4	170	15·6	172	15·7	173	15·9	175	16·0	177	16·2	178	16·3	180	1101
1102	14·3	158	14·5	159	14·6	161	14·7	162	14·9	164	15·0	165	15·1	167	15·3	168	15·4	170	15·6	172	15·7	173	15·9	175	16·0	177	16·2	178	16·3	180	16·5	182	1102
1103	14·5	160	14·6	161	14·7	162	14·9	164	15·0	165	15·1	167	15·3	168	15·4	170	15·6	172	15·7	173	15·9	175	16·0	177	16·2	178	16·3	180	16·5	182	16·6	183	1103
1104	14·6	161	14·7	163	14·9	164	15·0	166	15·1	167	15·3	169	15·4	170	15·5	171	15·7	173	15·8	175	16·0	177	16·2	178	16·3	180	16·5	182	16·6	183	16·8	185	1104

Table 1   (*Continued*)

t	10°C		12°C		14°C		16°C		18°C		20°C		22°C		24°C		26°C		28°C		30°C		32°C		34°C		36°C		38°C		40°C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1105	14.7	163	14.9	164	15.0	166	15.1	167	15.3	169	15.4	170	15.5	172	15.7	173	15.8	175	16.0	177	16.1	178	16.3	180	16.4	182	16.6	183	16.7	185	16.9	187	1105
1106	14.9	165	15.0	166	15.1	167	15.3	169	15.4	170	15.5	172	15.7	173	15.8	175	16.0	177	16.1	178	16.3	180	16.4	182	16.6	183	16.7	185	16.9	187	17.0	188	1106
1107	15.0	166	15.1	168	15.3	169	15.4	170	15.5	172	15.7	173	15.8	175	16.0	177	16.1	178	16.3	180	16.4	182	16.6	183	16.7	185	16.9	187	17.0	188	17.2	190	1107
1108	15.1	168	15.3	169	15.4	171	15.5	172	15.7	174	15.8	175	15.9	177	16.1	178	16.2	180	16.4	182	16.5	183	16.7	185	16.8	187	17.0	188	17.2	190	17.3	192	1108
1109	15.3	169	15.4	171	15.5	172	15.7	174	15.8	175	15.9	177	16.1	178	16.2	180	16.4	182	16.5	183	16.7	185	16.8	187	17.0	188	17.1	190	17.3	192	17.5	194	1109
1110	15.4	171	15.5	173	15.7	174	15.8	175	15.9	177	16.1	178	16.2	180	16.4	182	16.5	183	16.7	185	16.8	187	17.0	188	17.1	190	17.3	192	17.4	193	17.6	195	1110
1111	15.5	173	15.7	174	15.8	176	15.9	177	16.1	179	16.2	180	16.4	182	16.5	183	16.6	185	16.8	187	17.0	188	17.1	190	17.3	192	17.4	194	17.6	195	17.7	197	1111
1112	15.7	174	15.8	176	15.9	177	16.1	179	16.2	180	16.4	182	16.5	183	16.6	185	16.8	187	16.9	188	17.1	190	17.2	192	17.4	193	17.6	195	17.7	197	17.9	199	1112
1113	15.8	176	15.9	177	16.1	179	16.2	180	16.3	182	16.5	183	16.6	185	16.8	187	16.9	188	17.1	190	17.2	192	17.4	193	17.5	195	17.7	197	17.8	199	18.0	200	1113
1114	15.9	177	16.1	179	16.2	180	16.3	182	16.5	183	16.6	185	16.8	187	16.9	188	17.1	190	17.2	192	17.4	193	17.5	195	17.7	197	17.8	199	18.0	200	18.2	202	1114
1115	16.1	179	16.2	181	16.3	182	16.5	184	16.6	185	16.8	187	16.9	188	17.0	190	17.2	192	17.3	193	17.5	195	17.7	197	17.8	199	18.0	200	18.1	202	18.3	204	1115
1116	16.2	181	16.3	182	16.5	184	16.6	185	16.7	187	16.9	188	17.0	190	17.2	192	17.3	193	17.5	195	17.6	197	17.8	199	17.9	200	18.1	202	18.3	204	18.4	206	1116
1117	16.3	182	16.5	184	16.6	185	16.7	187	16.9	189	17.0	190	17.2	192	17.3	193	17.5	195	17.6	197	17.8	198	17.9	200	18.1	202	18.2	204	18.4	206	18.6	207	1117
1118	16.5	184	16.6	185	16.7	187	16.9	189	17.0	190	17.2	192	17.3	193	17.4	195	17.6	197	17.7	198	17.9	200	18.1	202	18.2	204	18.4	205	18.5	207	18.7	209	1118
1119	16.6	186	16.7	187	16.9	189	17.0	190	17.2	192	17.3	194	17.4	195	17.6	197	17.7	198	18.0	200	18.0	202	18.2	204	18.3	205	18.5	207	18.7	209	18.8	211	1119
1120	16.7	187	16.9	189	17.0	190	17.1	192	17.3	194	17.4	195	17.6	197	17.7	198	17.9	200	18.0	202	18.2	204	18.3	205	18.5	207	18.6	209	18.8	211	19.0	212	1120
1121	16.9	189	17.0	190	17.1	192	17.3	194	17.4	195	17.6	197	17.7	198	17.9	200	18.0	202	18.2	203	18.3	205	18.5	207	18.6	209	18.8	211	18.9	212	19.1	214	1121
1122	17.0	191	17.1	192	17.3	194	17.4	195	17.5	197	17.7	199	17.8	200	18.0	202	18.1	204	18.3	205	18.4	207	18.6	209	18.8	210	18.9	212	19.1	214	19.2	216	1122
1123	17.1	192	17.3	194	17.4	195	17.5	197	17.7	199	17.8	200	18.0	202	18.1	203	18.3	205	18.4	207	18.6	209	18.7	210	18.9	212	19.1	214	19.2	216	19.4	218	1123
1124	17.2	194	17.4	195	17.5	197	17.7	199	17.8	200	18.0	202	18.1	203	18.3	205	18.4	207	18.6	209	18.7	210	18.9	212	19.0	214	19.2	216	19.4	218	19.5	219	1124
1125	17.4	196	17.5	197	17.7	199	17.8	200	17.9	202	18.1	204	18.2	205	18.4	207	18.5	209	18.7	210	18.9	212	19.0	214	19.2	216	19.3	217	19.5	219	19.7	221	1125
1126	17.5	197	17.6	199	17.8	200	17.9	202	18.1	204	18.2	205	18.4	207	18.5	209	18.7	210	18.8	212	19.0	214	19.1	216	19.3	217	19.5	219	19.6	221	19.8	223	1126
1127	17.6	199	17.8	200	17.9	202	18.1	204	18.2	205	18.4	207	18.5	208	18.7	210	18.8	212	19.0	214	19.1	215	19.3	217	19.4	219	19.6	221	19.8	223	19.9	225	1127
1128	17.8	200	17.9	202	18.1	204	18.2	205	18.3	207	18.5	209	18.6	210	18.8	212	18.9	214	19.1	216	19.3	217	19.4	219	19.6	221	19.7	223	19.9	224	20.1	226	1128
1129	17.9	202	18.0	204	18.2	205	18.3	207	18.5	209	18.6	210	18.8	212	18.9	214	19.1	215	19.2	217	19.4	219	19.6	221	19.7	223	19.9	224	20.0	226	20.2	228	1129
1130	18.0	204	18.2	205	18.3	207	18.5	209	18.6	210	18.8	212	18.9	214	19.1	215	19.2	217	19.4	219	19.5	221	19.7	222	19.8	224	20.0	226	20.2	228	20.3	230	1130
1131	18.2	205	18.3	207	18.4	209	18.6	210	18.7	212	18.9	214	19.0	215	19.2	217	19.3	219	19.5	221	19.7	222	19.8	224	20.0	226	20.1	228	20.3	230	20.5	232	1131
1132	18.3	207	18.4	209	18.6	210	18.7	212	18.9	214	19.0	215	19.2	217	19.3	219	19.5	221	19.6	222	19.8	224	20.0	226	20.1	228	20.3	230	20.4	231	20.6	233	1132
1133	18.4	209	18.6	210	18.7	212	18.9	214	19.0	215	19.2	217	19.3	219	19.5	220	19.6	222	19.8	224	19.9	226	20.1	228	20.3	229	20.4	231	20.6	233	20.7	235	1133
1134	18.5	210	18.7	212	18.8	214	19.0	215	19.1	217	19.3	219	19.4	220	19.6	222	19.7	224	19.9	226	20.1	228	20.2	229	20.4	231	20.6	233	20.7	235	20.9	237	1134
1135	18.7	212	18.8	214	19.0	215	19.1	217	19.3	219	19.4	220	19.6	222	19.7	224	19.9	226	20.0	227	20.2	229	20.4	231	20.5	233	20.7	235	20.9	237	21.0	239	1135
1136	18.8	214	18.9	215	19.1	217	19.2	219	19.4	220	19.6	222	19.7	224	19.9	226	20.0	227	20.2	229	20.3	231	20.5	233	20.7	235	20.8	237	21.0	238	21.1	240	1136
1137	18.9	215	19.1	217	19.2	219	19.4	220	19.5	222	19.7	224	19.8	226	20.0	227	20.1	229	20.3	231	20.5	233	20.6	234	20.8	236	21.0	238	21.1	240	21.3	242	1137
1138	19.1	217	19.2	218	19.4	220	19.5	222	19.7	224	19.8	226	20.0	227	20.1	229	20.3	231	20.4	233	20.6	234	20.8	236	20.9	238	21.1	240	21.3	242	21.4	244	1138
1139	19.2	219	19.3	220	19.5	222	19.6	224	19.8	225	19.9	227	20.1	229	20.3	231	20.4	232	20.6	234	20.7	236	20.9	238	21.0	240	21.2	242	21.4	244	21.5	245	1139
1140	19.3	220	19.5	222	19.6	224	19.8	225	19.9	227	20.1	229	20.2	231	20.4	232	20.5	234	20.7	236	20.9	238	21.0	240	21.2	242	21.4	244	21.5	245	21.7	247	1140

Table 1   (Continued)

t	10°C		12°C		14°C		16°C		18°C		20°C		22°C		24°C		26°C		28°C		30°C		32°C		34°C		36°C		38°C		40°C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1141	19.4	222	19.6	224	19.7	225	19.9	227	20.1	229	20.2	231	20.4	232	20.5	234	20.7	236	20.8	238	21.0	240	21.2	241	21.3	243	21.5	245	21.7	247	21.8	249	1141
1142	19.6	223	19.7	225	19.9	227	20.0	229	20.2	230	20.3	232	20.5	234	20.7	236	20.8	238	21.0	239	21.1	241	21.3	243	21.5	245	21.6	247	21.8	249	21.9	251	1142
1143	19.7	225	19.8	227	20.0	229	20.2	230	20.3	232	20.5	234	20.6	236	20.8	238	20.9	239	21.1	241	21.3	243	21.4	245	21.6	247	21.8	249	21.9	251	22.1	252	1143
1144	19.8	227	20.0	228	20.1	230	20.3	232	20.4	234	20.6	236	20.8	237	20.9	239	21.1	241	21.2	243	21.4	245	21.6	247	21.7	248	21.9	250	22.1	252	22.2	254	1144
1145	20.0	229	20.1	230	20.3	232	20.4	234	20.6	236	20.7	237	20.9	239	21.0	241	21.2	243	21.4	245	21.5	247	21.7	248	21.9	250	22.0	252	22.2	254	22.3	256	1145
1146	20.1	230	20.2	232	20.4	234	20.5	236	20.7	237	20.9	239	21.0	241	21.2	243	21.3	244	21.5	246	21.7	248	21.8	250	22.0	252	22.1	254	22.3	256	22.5	258	1146
1147	20.2	232	20.4	234	20.5	235	20.7	237	20.8	239	21.0	241	21.1	242	21.3	244	21.5	246	21.6	248	21.8	250	22.0	252	22.1	254	22.3	256	22.4	257	22.6	259	1147
1148	20.3	234	20.5	235	20.6	237	20.8	239	21.0	241	21.1	242	21.3	244	21.4	246	21.6	248	21.8	250	21.9	252	22.1	253	22.2	255	22.4	257	22.6	259	22.7	261	1148
1149	20.5	235	20.6	237	20.8	239	20.9	240	21.1	242	21.2	244	21.4	246	21.6	248	21.7	250	21.9	252	22.1	253	22.2	255	22.4	257	22.5	259	22.7	261	22.9	263	1149
1150	20.6	237	20.8	239	20.9	240	21.1	242	21.2	244	21.4	246	21.5	248	21.7	249	21.9	251	22.0	253	22.2	255	22.3	257	22.5	259	22.7	261	22.8	263	23.0	265	1150
1151	20.7	239	20.9	240	21.0	242	21.2	244	21.3	246	21.5	247	21.7	249	21.8	251	22.0	253	22.2	255	22.3	257	22.5	259	22.6	261	22.8	262	23.0	264	23.1	266	1151
1152	20.9	240	21.0	242	21.2	244	21.3	246	21.5	247	21.6	249	21.8	251	22.0	253	22.1	255	22.3	257	22.4	259	22.6	260	22.8	262	22.9	264	23.1	266	23.3	268	1152
1153	21.0	242	21.1	244	21.3	245	21.5	247	21.6	249	21.8	251	21.9	253	22.1	255	22.2	257	22.4	258	22.6	260	22.7	262	22.9	264	23.1	266	23.2	268	23.4	270	1153
1154	21.1	244	21.3	245	21.4	247	21.6	249	21.7	251	21.9	253	22.1	254	22.2	256	22.4	258	22.5	260	22.7	262	22.9	264	23.0	266	23.2	268	23.4	270	23.5	272	1154
1155	21.2	245	21.4	247	21.6	249	21.7	251	21.9	253	22.0	254	22.2	256	22.4	258	22.5	260	22.6	262	22.8	264	23.0	266	23.2	267	23.3	269	23.5	271	23.7	273	1155
1156	21.4	247	21.5	249	21.7	251	21.8	252	22.0	254	22.2	256	22.3	258	22.5	260	22.6	262	22.8	263	23.0	265	23.1	267	23.3	269	23.5	271	23.6	273	23.8	275	1156
1157	21.5	249	21.7	250	21.8	252	22.0	254	22.1	256	22.3	258	22.4	260	22.6	262	22.8	263	22.9	265	23.1	267	23.3	269	23.4	271	23.6	273	23.8	275	23.9	277	1157
1158	21.6	250	21.8	252	21.9	254	22.1	256	22.3	258	22.4	260	22.6	261	22.7	263	22.9	265	23.1	267	23.2	269	23.4	271	23.6	273	23.7	275	23.9	277	24.1	278	1158
1159	21.8	252	21.9	254	22.1	256	22.2	258	22.4	259	22.5	261	22.7	263	22.9	265	23.0	267	23.2	269	23.4	271	23.5	272	23.7	274	23.9	277	24.0	278	24.2	280	1159
1160	21.9	254	22.0	256	22.2	257	22.4	259	22.5	261	22.7	263	22.8	265	23.0	267	23.2	269	23.3	270	23.5	272	23.6	274	23.8	276	24.0	278	24.1	280	24.3	282	1160
1161	22.0	256	22.2	257	22.3	259	22.5	261	22.6	263	22.8	265	23.0	267	23.1	268	23.3	270	23.4	272	23.6	274	23.8	276	23.9	278	24.1	280	24.3	282	24.4	284	1161
1162	22.1	257	22.3	259	22.5	261	22.6	263	22.8	265	22.9	266	23.1	268	23.3	270	23.4	272	23.6	274	23.7	276	23.9	278	24.1	280	24.2	282	24.4	284	24.6	286	1162
1163	22.3	259	22.4	261	22.6	263	22.7	264	22.9	266	23.1	268	23.2	270	23.4	272	23.5	274	23.7	276	23.9	278	24.0	280	24.2	281	24.4	283	24.5	285	24.7	287	1163
1164	22.4	261	22.6	262	22.7	264	22.9	266	23.0	268	23.2	270	23.3	272	23.5	274	23.7	276	23.8	277	24.0	279	24.2	281	24.3	283	24.5	285	24.7	287	24.8	289	1164
1165	22.5	262	22.7	264	22.8	266	23.0	268	23.2	270	23.3	272	23.5	274	23.6	275	23.8	277	24.0	279	24.1	281	24.3	283	24.5	285	24.6	287	24.8	289	25.0	291	1165
1166	22.6	264	22.8	266	23.0	268	23.1	270	23.3	271	23.4	273	23.6	275	23.8	277	23.9	279	24.1	281	24.3	283	24.4	285	24.6	287	24.8	289	24.9	291	25.1	293	1166
1167	22.8	266	22.9	268	23.1	269	23.2	271	23.4	273	23.6	275	23.7	277	23.9	279	24.1	281	24.2	283	24.4	285	24.6	286	24.7	288	24.9	290	25.1	292	25.2	294	1167
1168	22.9	267	23.1	269	23.2	271	23.4	273	23.5	275	23.7	277	23.9	279	24.0	281	24.2	283	24.3	284	24.5	286	24.7	288	24.8	290	25.0	292	25.2	294	25.4	296	1168
1169	23.0	269	23.2	271	23.3	273	23.5	275	23.7	277	23.8	278	24.0	280	24.2	282	24.3	284	24.5	286	24.6	288	24.8	290	25.0	292	25.1	294	25.3	296	25.5	298	1169
1170	23.2	271	23.3	273	23.5	275	23.6	276	23.8	278	23.9	280	24.1	282	24.3	284	24.4	286	24.6	288	24.8	290	24.9	292	25.1	294	25.3	296	25.4	298	25.6	300	1170
1171	23.3	273	23.4	274	23.6	276	23.8	278	23.9	280	24.1	282	24.2	284	24.4	286	24.6	288	24.7	290	24.9	292	25.1	293	25.2	295	25.4	297	25.6	299	25.7	301	1171
1172	23.4	274	23.6	276	23.7	278	23.9	280	24.0	282	24.2	284	24.4	286	24.5	287	24.7	289	24.9	291	25.0	293	25.2	295	25.4	297	25.5	299	25.7	301	25.9	303	1172
1173	23.5	276	23.7	278	23.8	280	24.0	282	24.2	283	24.3	285	24.5	287	24.7	289	24.8	291	25.0	293	25.2	295	25.3	297	25.5	299	25.7	301	25.8	303	26.0	305	1173
1174	23.7	278	23.8	280	24.0	282	24.1	283	24.3	285	24.5	287	24.6	289	24.8	291	25.0	293	25.1	295	25.3	297	25.4	299	25.6	301	25.8	303	26.0	305	26.1	307	1174
1175	23.8	279	23.9	281	24.1	283	24.3	285	24.4	287	24.6	289	24.7	291	24.9	293	25.1	295	25.2	297	25.4	299	25.6	300	25.7	302	25.9	305	26.1	307	26.3	309	1175
1176	23.9	281	24.1	283	24.2	285	24.4	287	24.5	289	24.7	291	24.9	292	25.0	294	25.2	296	25.4	298	25.5	300	25.7	302	25.9	304	26.1	306	26.2	308	26.4	310	1176

Table 1 (*Continued*)

D_t	10 °C g	10 °C G	12 °C g	12 °C G	14 °C g	14 °C G	16 °C g	16 °C G	18 °C g	18 °C G	20 °C g	20 °C G	22 °C g	22 °C G	24 °C g	24 °C G	26 °C g	26 °C G	28 °C g	28 °C G	30 °C g	30 °C G	32 °C g	32 °C G	34 °C g	34 °C G	36 °C g	36 °C G	38 °C g	38 °C G	40 °C g	40 °C G	D_t
1177	24·0	283	24·2	285	24·4	287	24·5	288	24·7	290	24·8	292	25·0	294	25·2	296	25·3	298	25·5	300	25·7	302	25·8	304	26·0	306	26·2	308	26·3	310	26·5	312	1177
1178	24·1	284	24·3	286	24·5	288	24·6	290	24·8	292	25·0	294	25·1	296	25·3	298	25·5	300	25·6	302	25·8	304	26·0	306	26·1	308	26·3	310	26·5	312	26·6	314	1178
1179	24·3	286	24·4	288	24·6	290	24·8	292	24·9	294	25·1	296	25·3	298	25·4	300	25·6	302	25·8	304	25·9	306	26·1	308	26·3	309	26·4	312	26·6	314	26·8	316	1179
1180	24·4	288	24·6	290	24·7	292	24·9	294	25·1	296	25·2	297	25·4	299	25·5	301	25·7	303	25·9	306	26·1	307	26·2	309	26·4	311	26·6	313	26·7	315	26·9	317	1180
1181	24·5	290	24·7	292	24·9	293	25·0	295	25·2	297	25·3	299	25·5	301	25·7	303	25·8	305	26·0	307	26·2	309	26·3	311	26·5	313	26·7	315	26·9	317	27·0	319	1181
1182	24·6	291	24·8	293	25·0	295	25·1	297	25·3	299	25·5	301	25·6	303	25·8	305	26·0	307	26·1	309	26·3	311	26·5	313	26·6	315	26·8	317	27·0	319	27·2	321	1182
1183	24·8	293	24·9	295	25·1	297	25·3	299	25·4	301	25·6	303	25·8	305	25·9	307	26·1	309	26·3	311	26·4	313	26·6	315	26·8	317	26·9	319	27·1	321	27·3	323	1183
1184	24·9	295	25·1	297	25·2	299	25·4	301	25·6	303	25·7	305	25·9	307	26·1	308	26·2	310	26·4	312	26·6	314	26·7	316	26·9	318	27·1	320	27·2	323	27·4	324	1184
1185	25·0	297	25·2	298	25·4	300	25·5	302	25·7	304	25·8	306	26·0	308	26·2	310	26·3	312	26·5	314	26·7	316	26·8	318	27·0	320	27·2	322	27·4	324	27·5	326	1185
1186	25·1	298	25·3	300	25·5	302	25·6	304	25·8	306	26·0	308	26·1	310	26·3	312	26·5	314	26·6	316	26·8	318	27·0	320	27·1	322	27·3	324	27·5	326	27·7	328	1186
1187	25·3	300	25·4	302	25·6	304	25·8	306	25·9	308	26·1	310	26·3	312	26·4	314	26·6	316	26·8	318	26·9	320	27·1	322	27·3	324	27·4	326	27·6	328	27·8	330	1187
1188	25·4	302	25·6	304	25·7	306	25·9	308	26·1	310	26·2	312	26·4	314	26·6	315	26·7	317	26·9	320	27·1	321	27·2	323	27·4	326	27·6	328	27·7	330	27·9	332	1188
1189	25·5	303	25·7	305	25·9	307	26·0	309	26·2	311	26·4	313	26·5	315	26·7	317	26·9	319	27·0	321	27·2	323	27·4	325	27·5	327	27·7	329	27·9	331	28·0	333	1189
1190	25·6	305	25·8	307	26·0	309	26·1	311	26·3	313	26·5	315	26·6	317	26·8	319	27·0	321	27·1	323	27·3	325	27·5	327	27·7	329	27·8	331	28·0	333	28·2	335	1190
1191	25·8	307	25·9	309	26·1	310	26·3	313	26·4	315	26·6	317	26·8	319	26·9	321	27·1	322	27·3	325	27·4	327	27·6	329	27·8	331	27·9	333	28·1	335	28·3	337	1191
1192	25·9	309	26·0	311	26·2	313	26·4	314	26·6	317	26·7	319	26·9	321	27·1	322	27·2	324	27·4	326	27·6	329	27·7	331	27·9	333	28·1	335	28·2	337	28·4	339	1192
1193	26·0	310	26·2	312	26·3	314	26·5	316	26·7	318	26·9	320	27·0	322	27·2	324	27·4	326	27·5	328	27·7	330	27·9	332	28·0	334	28·2	336	28·4	338	28·5	340	1193
1194	26·1	312	26·3	314	26·5	316	26·6	318	26·8	320	27·0	322	27·1	324	27·3	326	27·5	328	27·6	330	27·8	332	28·0	334	28·2	336	28·3	338	28·5	340	28·7	342	1194
1195	26·3	314	26·4	316	26·6	318	26·8	320	26·9	322	27·1	324	27·3	326	27·4	328	27·6	330	27·8	332	27·9	334	28·1	336	28·3	338	28·4	340	28·6	342	28·8	344	1195
1196	26·4	316	26·5	317	26·7	319	26·9	321	27·1	324	27·2	326	27·4	328	27·5	329	27·7	332	27·9	334	28·1	336	28·2	338	28·4	340	28·6	342	28·7	344	28·9	346	1196
1197	26·5	317	26·7	319	26·8	321	27·0	323	27·2	325	27·3	327	27·5	329	27·7	331	27·9	333	28·0	335	28·2	337	28·4	339	28·5	342	28·7	344	28·9	346	29·1	348	1197
1198	26·6	319	26·8	321	27·0	323	27·1	325	27·3	327	27·5	329	27·6	331	27·8	333	28·0	335	28·1	337	28·3	339	28·5	341	28·7	343	28·8	345	29·0	347	29·2	350	1198
1199	26·8	321	26·9	323	27·1	325	27·3	327	27·4	329	27·6	331	27·8	333	27·9	335	28·1	337	28·3	339	28·4	341	28·6	344	28·8	345	29·0	347	29·1	349	29·3	351	1199
1200	26·9	323	27·0	324	27·2	327	27·4	329	27·6	331	27·7	333	27·9	335	28·0	337	28·2	339	28·4	341	28·6	343	28·7	345	28·9	347	29·1	349	29·2	351	29·4	353	1200
1201	27·0	324	27·2	326	27·3	328	27·5	330	27·7	332	27·8	334	28·0	336	28·2	338	28·4	340	28·5	342	28·7	345	28·9	347	29·0	349	29·2	351	29·4	353	29·6	355	1201
1202	27·1	326	27·3	328	27·5	330	27·6	332	27·8	334	28·0	336	28·1	338	28·3	340	28·5	342	28·6	344	28·8	346	29·0	348	29·2	351	29·3	353	29·5	355	29·7	357	1202
1203	27·2	328	27·4	330	27·6	332	27·8	334	27·9	336	28·1	338	28·3	340	28·4	342	28·6	344	28·8	346	28·9	348	29·1	350	29·3	352	29·5	354	29·6	356	29·8	358	1203
1204	27·4	330	27·5	332	27·7	334	27·9	336	28·0	338	28·2	340	28·4	342	28·6	344	28·7	346	28·9	348	29·1	350	29·2	352	29·4	354	29·6	356	29·8	358	29·9	360	1204
1205	27·5	331	27·7	333	27·8	335	28·0	337	28·2	339	28·3	341	28·5	343	28·7	345	28·9	348	29·0	350	29·2	352	29·4	354	29·5	356	29·7	358	29·9	360	30·1	362	1205
1206	27·6	333	27·8	335	28·0	337	28·1	339	28·3	341	28·5	343	28·6	345	28·8	347	29·0	349	29·1	351	29·3	353	29·5	356	29·7	358	29·8	360	30·0	362	30·2	364	1206
1207	27·8	335	27·9	337	28·1	339	28·2	341	28·4	343	28·6	345	28·8	347	28·9	349	29·1	351	29·3	353	29·4	355	29·6	357	29·8	359	30·0	361	30·1	364	30·3	366	1207
1208	27·9	336	28·0	338	28·2	341	28·4	343	28·5	345	28·7	347	28·9	349	29·1	351	29·2	353	29·4	355	29·6	357	29·7	359	29·9	361	30·1	363	30·3	365	30·4	367	1208
1209	28·0	338	28·2	340	28·3	342	28·5	344	28·7	346	28·8	349	29·0	351	29·2	353	29·3	355	29·5	357	29·7	359	29·9	361	30·0	363	30·2	365	30·4	367	30·6	369	1209
1210	28·1	340	28·3	342	28·4	344	28·6	346	28·8	348	29·0	350	29·1	352	29·3	355	29·5	357	29·6	359	29·8	361	30·0	363	30·2	365	30·3	367	30·5	369	30·7	371	1210
1211	28·2	342	28·4	344	28·6	346	28·7	348	28·9	350	29·1	352	29·2	354	29·4	356	29·6	358	29·8	360	29·9	363	30·1	365	30·3	367	30·4	369	30·6	371	30·8	373	1211
1212	28·4	344	28·5	346	28·7	348	28·9	350	29·0	352	29·2	354	29·4	356	29·5	358	29·7	360	29·9	362	30·1	364	30·2	366	30·4	368	30·6	371	30·8	373	30·9	375	1212

Table 1 (*Continued*)

t	10 °C g	10 °C G	12 °C g	12 °C G	14 °C g	14 °C G	16 °C g	16 °C G	18 °C g	18 °C G	20 °C g	20 °C G	22 °C g	22 °C G	24 °C g	24 °C G	26 °C g	26 °C G	28 °C g	28 °C G	30 °C g	30 °C G	32 °C g	32 °C G	34 °C g	34 °C G	36 °C g	36 °C G	38 °C g	38 °C G	40 °C g	40 °C G	t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1213	28.5	345	28.6	348	28.8	349	29.0	352	29.1	354	29.3	356	29.5	358	29.7	360	29.8	362	30.0	364	30.2	366	30.4	368	30.5	370	30.7	372	30.9	375	31.0	377	**1213**
1214	28.6	347	28.8	349	28.9	351	29.1	353	29.3	355	29.4	358	29.6	360	29.8	362	30.0	364	30.1	366	30.3	368	30.5	370	30.6	372	30.8	374	31.0	376	31.2	378	**1214**
1215	28.7	349	28.9	351	29.1	353	29.2	355	29.4	357	29.6	359	29.7	361	29.9	363	30.1	365	30.3	368	30.4	370	30.6	372	30.8	374	31.0	376	31.1	378	31.3	380	**1215**
1216	28.8	351	29.0	353	29.2	355	29.4	357	29.5	359	29.7	361	29.9	363	30.0	365	30.2	367	30.4	369	30.6	371	30.7	374	30.9	376	31.1	378	31.2	380	31.4	382	**1216**
1217	29.0	352	29.1	355	29.3	357	29.5	359	29.6	361	29.8	363	30.0	365	30.2	367	30.3	369	30.5	371	30.7	373	30.9	375	31.0	378	31.2	380	31.4	382	31.5	384	**1217**
1218	29.1	354	29.3	356	29.4	358	29.6	361	29.8	362	29.9	365	30.1	367	30.3	369	30.5	371	30.6	373	30.8	375	31.0	377	31.1	379	31.3	381	31.5	384	31.7	386	**1218**
1219	29.2	356	29.4	358	29.6	360	29.7	362	29.9	364	30.1	366	30.2	369	30.4	371	30.6	373	30.8	375	30.9	377	31.1	379	31.3	381	31.4	383	31.6	385	31.8	388	**1219**
1220	29.3	358	29.5	360	29.7	362	29.8	364	30.0	366	30.2	368	30.4	370	30.5	372	30.7	375	30.9	377	31.0	379	31.2	381	31.4	383	31.6	385	31.7	387	31.9	389	**1220**
1221	29.5	360	29.6	362	29.8	364	30.0	366	30.1	368	30.3	370	30.5	372	30.7	374	30.8	376	31.0	379	31.2	381	31.3	383	31.5	385	31.7	387	31.9	389	32.0	391	**1221**
1222	29.6	361	29.7	363	29.9	366	30.1	368	30.3	370	30.4	372	30.6	374	30.8	376	30.9	378	31.1	380	31.3	382	31.5	384	31.6	387	31.8	389	32.0	391	32.2	393	**1222**
1223	29.7	363	29.9	365	30.0	367	30.2	369	30.4	372	30.6	374	30.7	376	30.9	378	31.1	380	31.2	382	31.4	385	31.6	386	31.8	388	31.9	391	32.1	393	32.3	395	**1223**
1224	29.8	365	30.0	367	30.2	369	30.3	371	30.5	373	30.7	375	30.8	377	31.0	380	31.2	382	31.4	384	31.5	386	31.7	388	31.9	390	32.1	392	32.2	394	32.4	397	**1224**
1225	29.9	367	30.1	369	30.3	371	30.5	373	30.6	375	30.8	377	31.0	379	31.1	381	31.3	383	31.5	386	31.7	388	31.8	390	32.0	392	32.2	394	32.4	396	32.5	398	**1225**
1226	30.1	369	30.2	371	30.4	373	30.6	375	30.7	377	30.9	379	31.1	381	31.3	383	31.4	385	31.6	388	31.8	390	32.0	392	32.1	394	32.3	396	32.5	398	32.6	400	**1226**
1227	30.2	370	30.4	372	30.5	374	30.7	377	30.9	379	31.0	381	31.2	383	31.4	385	31.5	387	31.7	389	31.9	391	32.1	393	32.2	396	32.4	398	32.6	400	32.8	402	**1227**
1228	30.3	372	30.5	374	30.7	376	30.8	378	31.0	381	31.2	383	31.3	385	31.5	387	31.7	389	31.9	391	32.0	393	32.2	395	32.4	397	32.5	400	32.7	402	32.9	404	**1228**
1229	30.4	374	30.6	376	30.8	378	30.9	380	31.1	382	31.3	384	31.5	387	31.6	389	31.8	391	32.0	393	32.1	395	32.3	397	32.5	399	32.7	402	32.8	404	33.0	406	**1229**
1230	30.5	376	30.7	378	30.9	380	31.1	382	31.2	384	31.4	386	31.6	388	31.7	390	31.9	392	32.1	395	32.3	396	32.4	399	32.6	401	32.8	403	33.0	405	33.1	407	**1230**
1231	30.7	377	30.8	380	31.0	382	31.2	384	31.4	386	31.5	388	31.7	390	31.9	392	32.0	394	32.2	397	32.4	399	32.6	401	32.7	403	32.9	405	33.1	407	33.3	409	**1231**
1232	30.8	379	31.0	381	31.1	384	31.3	386	31.5	388	31.7	390	31.8	392	32.0	394	32.2	396	32.3	398	32.5	401	32.7	403	32.9	405	33.0	407	33.2	409	33.4	411	**1232**
1233	30.9	381	31.1	383	31.3	385	31.4	387	31.6	390	31.8	392	31.9	394	32.1	396	32.3	398	32.5	400	32.6	402	32.8	404	33.0	407	33.2	409	33.3	411	33.5	413	**1233**
1234	31.0	383	31.2	385	31.4	387	31.5	389	31.7	391	31.9	394	32.1	396	32.2	398	32.4	400	32.6	402	32.8	404	32.9	406	33.1	408	33.3	411	33.4	413	33.6	415	**1234**
1235	31.1	385	31.3	387	31.5	389	31.7	391	31.8	393	32.0	396	32.2	397	32.4	400	32.5	402	32.7	404	32.9	406	33.0	408	33.2	410	33.4	412	33.6	415	33.7	417	**1235**
1236	31.3	386	31.4	388	31.6	391	31.8	393	32.0	395	32.1	397	32.3	399	32.5	401	32.6	404	32.8	406	33.0	408	33.2	410	33.3	412	33.5	414	33.7	416	33.9	419	**1236**
1237	31.4	388	31.6	390	31.7	393	31.9	395	32.1	397	32.3	399	32.4	401	32.6	403	32.8	405	32.9	407	33.1	410	33.3	412	33.5	414	33.6	416	33.8	418	34.0	420	**1237**
1238	31.5	390	31.7	392	31.9	394	32.0	396	32.2	399	32.4	401	32.5	403	32.7	405	32.9	407	33.1	409	33.2	412	33.4	414	33.6	416	33.8	418	33.9	420	34.1	422	**1238**
1239	31.6	392	31.8	394	32.0	396	32.1	398	32.3	400	32.5	403	32.7	405	32.8	407	33.0	409	33.2	411	33.4	413	33.5	415	33.7	418	33.9	420	34.0	422	34.2	424	**1239**
1240	31.7	394	31.9	396	32.1	398	32.3	400	32.4	402	32.6	404	32.8	406	33.0	409	33.1	411	33.3	413	33.5	415	33.7	417	33.8	419	34.0	422	34.2	424	34.3	426	**1240**
1241	31.9	396	32.0	398	32.2	400	32.4	402	32.6	404	32.7	406	32.9	408	33.1	411	33.3	413	33.4	415	33.6	417	33.8	419	34.0	421	34.1	423	34.3	426	34.5	428	**1241**
1242	32.0	397	32.2	399	32.3	402	32.5	404	32.7	406	32.9	408	33.0	410	33.2	412	33.4	414	33.6	417	33.7	419	33.9	421	34.1	423	34.2	425	34.4	427	34.6	430	**1242**
1243	32.1	399	32.3	401	32.5	403	32.6	406	32.8	408	33.0	410	33.1	412	33.3	414	33.5	416	33.7	419	33.8	421	34.0	423	34.2	425	34.4	427	34.5	429	34.7	431	**1243**
1244	32.2	401	32.4	403	32.6	405	32.8	407	32.9	410	33.1	412	33.3	414	33.4	416	33.6	418	33.8	420	34.0	422	34.1	425	34.3	427	34.5	429	34.6	431	34.8	433	**1244**
1245	32.4	403	32.5	405	32.7	407	32.9	409	33.0	411	33.2	414	33.4	416	33.6	418	33.7	420	33.9	422	34.1	424	34.3	427	34.4	429	34.6	431	34.8	433	35.0	435	**1245**
1246	32.5	404	32.6	406	32.8	409	33.0	411	33.2	413	33.3	415	33.5	417	33.7	419	33.9	421	34.0	424	34.2	426	34.4	428	34.6	430	34.7	432	34.9	435	35.1	437	**1246**
1247	32.6	406	32.8	409	32.9	411	33.1	413	33.3	415	33.4	417	33.6	419	33.8	422	34.0	424	34.2	426	34.3	428	34.5	430	34.7	432	34.8	434	35.0	437	35.2	439	**1247**
1248	32.7	408	32.9	410	33.1	413	33.2	415	33.4	417	33.6	419	33.8	421	33.9	423	34.1	426	34.3	428	34.4	430	34.6	432	34.8	434	35.0	436	35.1	439	35.3	441	**1248**

Table 1 (*Continued*)

D_t	10°C g	10°C G	12°C g	12°C G	14°C g	14°C G	16°C g	16°C G	18°C g	18°C G	20°C g	20°C G	22°C g	22°C G	24°C g	24°C G	26°C g	26°C G	28°C g	28°C G	30°C g	30°C G	32°C g	32°C G	34°C g	34°C G	36°C g	36°C G	38°C g	38°C G	40°C g	40°C G	D_t
1249	32.8	410	33.0	412	33.2	414	33.3	416	33.5	419	33.7	421	33.9	423	34.1	425	34.2	427	34.4	430	34.6	432	34.7	434	34.9	436	35.1	438	35.3	440	35.4	443	1249
1250	33.0	412	33.1	414	33.3	416	33.5	418	33.6	421	33.8	423	34.0	425	34.2	427	34.3	429	34.5	431	34.7	434	34.9	436	35.0	438	35.2	440	35.4	442	35.5	444	1250
1251	33.1	414	33.2	416	33.4	418	33.6	420	33.8	422	33.9	425	34.1	427	34.3	429	34.5	431	34.6	433	34.8	435	35.0	438	35.2	440	35.3	442	35.5	444	35.7	446	1251
1252	33.2	416	33.4	418	33.5	420	33.7	422	33.9	424	34.1	426	34.2	429	34.4	431	34.6	433	34.8	435	34.9	437	35.1	439	35.3	442	35.4	444	35.6	446	35.8	448	1252
1253	33.3	417	33.5	420	33.6	422	33.8	424	34.0	426	34.2	428	34.4	430	34.5	433	34.7	435	34.9	437	35.0	439	35.2	441	35.4	443	35.6	446	35.7	448	35.9	450	1253
1254	33.4	419	33.6	421	33.8	423	33.9	426	34.1	428	34.3	430	34.5	432	34.6	434	34.8	437	35.0	439	35.2	441	35.3	443	35.5	445	35.7	447	35.9	450	36.0	452	1254
1255	33.5	421	33.7	423	33.9	425	34.1	427	34.2	430	34.4	432	34.6	434	34.8	436	34.9	438	35.1	441	35.3	443	35.5	445	35.6	447	35.8	449	36.0	452	36.1	454	1255
1256	33.7	423	33.8	425	34.0	427	34.2	429	34.4	432	34.5	434	34.7	436	34.9	438	35.1	440	35.2	442	35.4	445	35.6	447	35.8	449	35.9	451	36.1	453	36.3	455	1256
1257	33.8	424	34.0	427	34.1	429	34.3	431	34.5	433	34.6	436	34.8	438	35.0	440	35.2	442	35.3	444	35.5	446	35.7	449	35.9	451	36.0	453	36.2	455	36.4	457	1257
1258	33.9	426	34.1	429	34.2	431	34.4	433	34.6	435	34.8	437	34.9	439	35.1	442	35.3	444	35.5	446	35.6	448	35.8	450	36.0	453	36.2	455	36.3	457	36.5	459	1258
1259	34.0	428	34.2	431	34.4	433	34.5	435	34.7	437	34.9	439	35.1	441	35.2	444	35.4	446	35.6	448	35.8	450	35.9	452	36.1	455	36.3	457	36.5	459	36.6	461	1259
1260	34.1	430	34.3	433	34.5	434	34.7	437	34.8	439	35.0	441	35.2	443	35.4	446	35.5	448	35.7	450	35.9	452	36.0	454	36.2	456	36.4	459	36.6	462	36.7	463	1260
1261	34.3	432	34.4	434	34.6	436	34.8	438	35.0	441	35.1	443	35.3	445	35.5	447	35.6	450	35.8	452	36.0	454	36.2	456	36.3	458	36.5	460	36.7	463	36.9	465	1261
1262	34.4	434	34.6	436	34.7	438	34.9	440	35.1	443	35.2	445	35.4	447	35.6	449	35.8	451	35.9	453	36.1	456	36.3	457	36.5	460	36.6	462	36.8	465	37.0	467	1262
1263	34.5	436	34.7	438	34.8	440	35.0	442	35.2	444	35.4	447	35.5	449	35.7	451	35.9	453	36.1	455	36.2	458	36.4	460	36.6	462	36.7	464	36.9	466	37.1	468	1263
1264	34.6	438	34.8	440	35.0	442	35.1	444	35.3	446	35.5	448	35.7	451	35.8	453	36.0	455	36.2	457	36.4	459	36.5	462	36.7	464	36.9	466	37.0	468	37.2	470	1264
1265	34.7	439	34.9	441	35.1	444	35.3	446	35.4	448	35.6	450	35.8	452	36.0	455	36.1	457	36.3	459	36.5	461	36.6	463	36.8	466	37.0	468	37.2	470	37.3	472	1265
1266	34.9	441	35.0	443	35.2	446	35.4	448	35.6	450	35.7	452	35.9	454	36.1	457	36.2	459	36.4	461	36.6	463	36.8	465	36.9	468	37.1	470	37.3	472	37.4	474	1266
1267	35.0	443	35.1	445	35.3	448	35.5	450	35.7	452	35.8	454	36.0	456	36.2	459	36.4	461	36.5	463	36.7	465	36.9	467	37.1	470	37.2	472	37.4	474	37.6	476	1267
1268	35.1	445	35.3	447	35.4	449	35.6	452	35.8	454	36.0	456	36.1	458	36.3	460	36.5	462	36.6	465	36.8	467	37.0	469	37.2	471	37.3	473	37.5	476	37.7	478	1268
1269	35.2	447	35.4	449	35.6	451	35.7	453	35.9	456	36.1	458	36.2	460	36.4	462	36.6	464	36.8	466	36.9	469	37.1	471	37.3	473	37.5	475	37.6	478	37.8	480	1269
1270	35.3	449	35.5	451	35.7	453	35.8	455	36.0	457	36.2	460	36.4	462	36.5	464	36.7	466	36.9	468	37.1	470	37.2	473	37.4	475	37.6	477	37.7	479	37.9	482	1270
1271	35.4	451	35.6	453	35.8	455	36.0	457	36.1	459	36.3	462	36.5	464	36.7	466	36.8	468	37.0	470	37.2	472	37.3	475	37.5	477	37.7	479	37.9	481	38.0	483	1271
1272	35.6	452	35.7	455	35.9	457	36.1	459	36.3	461	36.4	463	36.6	466	36.8	468	36.9	470	37.1	472	37.3	474	37.5	476	37.6	479	37.8	481	38.0	483	38.1	485	1272
1273	35.7	454	35.9	456	36.0	459	36.2	461	36.4	463	36.5	465	36.7	467	36.9	470	37.1	472	37.2	474	37.4	476	37.6	478	37.8	481	37.9	483	38.1	485	38.3	487	1273
1274	35.8	456	36.0	458	36.1	460	36.3	463	36.5	465	36.6	467	36.8	469	37.0	472	37.2	474	37.4	476	37.5	478	37.7	480	37.9	482	38.0	485	38.2	487	38.4	489	1274
1275	35.9	458	36.1	460	36.3	462	36.4	464	36.6	467	36.8	469	37.0	471	37.1	473	37.3	475	37.5	478	37.6	480	37.8	482	38.0	484	38.2	487	38.3	489	38.5	491	1275
1276	36.0	460	36.2	462	36.4	464	36.6	466	36.7	469	36.9	471	37.1	473	37.2	475	37.4	477	37.6	480	37.8	482	37.9	484	38.1	486	38.3	488	38.4	490	38.6	493	1276
1277	36.2	462	36.3	464	36.5	466	36.7	468	36.8	470	37.0	473	37.2	475	37.4	477	37.5	479	37.7	481	37.9	484	38.0	486	38.2	488	38.4	490	38.6	492	38.7	495	1277
1278	36.3	464	36.4	466	36.6	468	36.8	470	37.0	472	37.1	475	37.3	477	37.5	479	37.6	481	37.8	483	38.0	486	38.2	488	38.3	490	38.5	492	38.7	494	38.8	497	1278
1279	36.4	465	36.6	468	36.7	470	36.9	472	37.1	474	37.2	476	37.4	479	37.5	481	37.7	483	37.9	485	38.1	488	38.3	490	38.5	492	38.6	494	38.8	496	39.0	498	1279
1280	36.5	467	36.7	469	36.8	472	37.0	474	37.2	476	37.4	478	37.5	480	37.7	483	37.9	485	38.1	487	38.2	489	38.4	492	38.6	494	38.7	496	38.9	498	39.1	500	1280
1281	36.6	469	36.8	471	37.0	473	37.1	476	37.3	478	37.5	480	37.7	482	37.8	484	38.0	487	38.2	489	38.3	491	38.5	493	38.7	496	38.9	498	39.0	500	39.2	502	1281
1282	36.7	471	36.9	473	37.1	475	37.3	478	37.4	480	37.6	482	37.8	484	37.9	486	38.1	489	38.3	491	38.5	493	38.6	495	38.8	497	39.0	500	39.1	502	39.3	504	1282
1283	36.8	473	37.0	475	37.2	477	37.4	479	37.5	482	37.7	484	37.9	486	38.1	488	38.2	490	38.4	493	38.6	495	38.7	497	38.9	499	39.1	502	39.3	504	39.4	506	1283
1284	37.0	475	37.1	477	37.3	479	37.5	481	37.7	484	37.8	486	38.0	488	38.2	490	38.3	492	38.5	495	38.7	497	38.9	499	39.0	501	39.2	503	39.4	506	39.5	508	1284

Table 1 (Continued)

t D_t	10°C g	G	12°C g	G	14°C g	G	16°C g	G	18°C g	G	20°C g	G	22°C g	G	24°C g	G	26°C g	G	28°C g	G	30°C g	G	32°C g	G	34°C g	G	36°C g	G	38°C g	G	40°C g	G	t D_t
1285	37·1	476	37·3	479	37·4	481	37·6	483	37·8	485	37·9	488	38·1	490	38·3	492	38·5	494	38·6	496	38·8	499	39·0	501	39·2	503	39·3	505	39·5	507	39·7	510	1285
1286	37·2	478	37·4	481	37·5	483	37·7	485	37·9	487	38·1	489	38·2	492	38·4	494	38·6	496	38·7	498	38·9	501	39·1	503	39·3	505	39·4	507	39·6	509	39·8	511	1286
1287	37·3	480	37·5	482	37·6	485	37·8	487	38·0	489	38·2	491	38·3	494	38·5	496	38·7	498	38·9	500	39·0	503	39·2	505	39·4	507	39·5	509	39·7	511	39·9	513	1287
1288	37·4	482	37·6	484	37·8	487	38·0	489	38·1	491	38·3	493	38·5	495	38·6	498	38·8	500	39·0	502	39·2	504	39·3	506	39·5	509	39·7	511	39·8	513	40·0	515	1288
1289	37·5	484	37·7	486	37·9	488	38·1	491	38·2	493	38·4	495	38·6	497	38·8	499	38·9	502	39·1	504	39·3	506	39·4	508	39·6	511	39·8	513	39·9	515	40·1	517	1289
1290	37·7	486	37·8	488	38·0	490	38·2	493	38·4	495	38·5	497	38·7	499	38·9	501	39·0	503	39·2	506	39·4	508	39·6	510	39·7	513	39·9	515	40·1	517	40·2	519	1290
1291	37·8	488	38·0	490	38·1	492	38·3	494	38·5	497	38·6	499	38·8	501	39·0	503	39·1	505	39·3	508	39·5	510	39·7	512	39·8	514	40·0	517	40·2	519	40·3	521	1291
1292	37·9	490	38·1	492	38·2	494	38·4	496	38·6	499	38·8	501	38·9	503	39·1	505	39·3	507	39·4	510	39·6	512	39·8	514	40·0	516	40·1	518	40·3	521	40·5	523	1292
1293	38·0	491	38·2	494	38·4	496	38·5	498	38·7	500	38·9	503	39·0	505	39·2	507	39·4	509	39·6	511	39·7	514	39·9	516	40·1	518	40·2	520	40·4	522	40·6	525	1293
1294	38·1	493	38·3	496	38·5	498	38·6	500	38·8	502	39·0	504	39·2	507	39·3	509	39·5	511	39·7	513	39·9	516	40·0	518	40·2	520	40·4	522	40·5	524	40·7	527	1294
1295	38·2	495	38·4	497	38·6	500	38·8	502	38·9	504	39·1	506	39·3	509	39·4	511	39·6	513	39·8	515	40·0	518	40·1	520	40·3	522	40·5	524	40·6	526	40·8	528	1295
1296	38·4	497	38·5	499	38·7	502	38·9	504	39·0	506	39·2	508	39·4	510	39·6	513	39·7	515	39·9	517	40·1	519	40·2	522	40·4	524	40·6	526	40·8	528	40·9	530	1296
1297	38·5	499	38·6	501	38·8	503	39·0	506	39·2	508	39·3	510	39·5	512	39·7	515	39·8	517	40·0	519	40·2	521	40·4	523	40·5	526	40·7	528	40·9	530	41·0	532	1297
1298	38·6	501	38·8	503	38·9	505	39·1	508	39·3	510	39·4	512	39·6	514	39·8	516	40·0	519	40·1	521	40·3	523	40·5	525	40·6	527	40·8	530	41·0	532	41·1	534	1298
1299	38·7	503	38·9	505	39·0	507	39·2	509	39·4	512	39·6	514	39·7	516	39·9	518	40·1	521	40·2	523	40·4	525	40·6	527	40·7	529	40·9	532	41·1	534	41·3	536	1299
1300	38·8	505	39·0	507	39·2	509	39·3	511	39·5	514	39·7	516	39·9	518	40·0	520	40·2	522	40·4	525	40·5	527	40·7	529	40·9	531	41·0	534	41·2	536	41·4	538	1300
1301	38·9	506	39·1	509	39·3	511	39·4	513	39·6	515	39·8	518	40·0	520	40·1	522	40·3	524	40·5	527	40·6	529	40·8	531	41·0	533	41·2	535	41·3	538	41·5	540	1301
1302	39·0	508	39·2	511	39·4	513	39·6	515	39·7	517	39·9	520	40·1	522	40·3	524	40·4	526	40·6	528	40·8	531	40·9	533	41·1	535	41·3	537	41·4	540	41·6	542	1302
1303	39·2	510	39·3	512	39·5	515	39·7	517	39·9	519	40·0	521	40·2	524	40·4	526	40·5	528	40·7	530	40·9	533	41·0	535	41·2	537	41·4	539	41·6	541	41·7	544	1303
1304	39·3	512	39·4	514	39·6	517	39·8	519	40·0	521	40·1	523	40·3	526	40·5	528	40·6	530	40·8	532	41·0	535	41·2	537	41·3	539	41·5	541	41·7	543	41·8	545	1304
1305	39·4	514	39·6	516	39·7	519	39·9	521	40·1	523	40·3	525	40·4	527	40·6	530	40·8	532	40·9	534	41·1	536	41·3	539	41·4	541	41·6	543	41·8	545	41·9	547	1305
1306	39·5	516	39·7	518	39·8	520	40·0	523	40·2	525	40·4	527	40·5	529	40·7	532	40·9	534	41·0	536	41·2	538	41·4	541	41·6	543	41·7	544	41·9	547	42·1	549	1306
1307	39·6	518	39·8	520	40·0	522	40·1	524	40·3	527	40·5	529	40·7	531	40·8	534	41·0	536	41·2	538	41·3	540	41·5	542	41·7	544	41·8	547	42·0	549	42·2	551	1307
1308	39·7	520	39·9	522	40·1	524	40·2	526	40·4	529	40·6	531	40·8	532	40·9	535	41·1	538	41·3	540	41·4	542	41·6	544	41·8	546	42·0	549	42·1	551	42·3	553	1308
1309	39·9	522	40·0	524	40·2	526	40·4	528	40·5	531	40·7	533	40·9	535	41·0	537	41·2	539	41·4	541	41·6	544	41·7	546	41·9	548	42·1	551	42·2	553	42·4	555	1309
1310	40·0	523	40·1	526	40·3	528	40·5	530	40·6	533	40·8	535	41·0	537	41·2	539	41·3	541	41·5	543	41·7	546	41·8	548	42·0	550	42·2	553	42·3	555	42·5	557	1310
1311	40·1	525	40·3	528	40·4	530	40·6	532	40·8	534	40·9	537	41·1	539	41·3	541	41·4	543	41·6	546	41·8	548	42·0	550	42·1	552	42·3	554	42·5	557	42·6	559	1311
1312	40·2	527	40·4	530	40·5	532	40·7	534	40·9	536	41·0	538	41·2	541	41·4	543	41·5	545	41·7	547	41·9	550	42·1	552	42·2	554	42·4	556	42·6	559	42·7	561	1312
1313	40·3	529	40·5	532	40·6	534	40·8	536	41·0	538	41·2	540	41·3	543	41·5	545	41·6	547	41·8	549	42·0	552	42·2	554	42·3	556	42·5	558	42·7	560	42·8	562	1313
1314	40·4	531	40·6	533	40·8	536	40·9	538	41·1	540	41·3	542	41·4	545	41·6	547	41·8	549	42·0	551	42·1	553	42·3	556	42·5	558	42·6	560	42·8	562	43·0	564	1314
1315	40·5	533	40·7	535	40·9	537	41·0	540	41·2	542	41·4	544	41·6	546	41·7	549	41·9	551	42·1	553	42·2	555	42·4	558	42·6	560	42·7	562	42·9	564	43·1	566	1315
1316	40·6	535	40·8	537	41·0	539	41·2	542	41·3	544	41·5	546	41·7	548	41·8	550	42·0	553	42·2	555	42·3	557	42·5	559	42·7	562	42·9	564	43·0	566	43·2	568	1316
1317	40·8	537	40·9	539	41·1	541	41·3	544	41·4	546	41·6	548	41·8	550	41·9	552	42·1	555	42·3	557	42·5	559	42·6	561	42·8	564	43·0	566	43·1	568	43·3	570	1317
1318	40·9	539	41·0	541	41·2	543	41·4	545	41·6	548	41·7	550	41·9	552	42·1	554	42·2	556	42·4	559	42·6	561	42·7	563	42·9	566	43·1	568	43·2	570	43·4	572	1318
1319	41·0	541	41·2	543	41·3	545	41·5	547	41·7	550	41·8	551	42·0	554	42·2	556	42·3	558	42·5	561	42·7	563	42·8	565	43·0	567	43·2	570	43·4	572	43·5	574	1319
1320	41·1	543	41·3	545	41·4	547	41·6	549	41·8	551	41·9	554	42·1	556	42·3	568	42·4	560	42·6	563	42·8	565	43·0	567	43·1	569	43·3	572	43·5	574	43·6	576	1320

Table 1 *(Continued)*

D_t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		D_t
	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	
1321	41.2	544	41.4	547	41.6	549	41.7	551	41.9	553	42.1	555	42.2	558	42.4	560	42.6	562	42.7	565	42.9	567	43.1	569	43.2	570	43.4	573	43.6	576	43.7	578	1321
1322	41.3	546	41.5	549	41.7	551	41.8	553	42.0	555	42.2	557	42.3	560	42.5	562	42.7	564	42.9	566	43.0	569	43.2	571	43.4	573	43.5	575	43.7	577	43.8	580	1322
1323	41.4	548	41.6	551	41.8	553	42.0	555	42.1	557	42.3	559	42.4	562	42.6	564	42.8	566	43.0	568	43.1	571	43.3	573	43.5	575	43.6	577	43.8	579	44.0	581	1323
1324	41.6	550	41.7	552	41.9	555	42.1	557	42.2	559	42.4	561	42.6	563	42.7	566	42.9	568	43.1	570	43.2	572	43.4	575	43.6	577	43.7	579	43.9	581	44.1	583	1324
1325	41.7	552	41.8	554	42.0	557	42.2	559	42.3	561	42.5	561	42.7	565	42.8	568	43.0	570	43.2	572	43.4	574	43.5	577	43.7	579	43.9	581	44.0	583	44.2	585	1325
1326	41.8	554	41.9	556	42.1	558	42.3	561	42.5	563	42.6	563	42.8	567	43.0	570	43.1	572	43.3	574	43.5	576	43.6	579	43.8	581	44.0	583	44.1	585	44.3	587	1326
1327	41.9	556	42.1	558	42.2	560	42.4	563	42.6	565	42.7	567	42.9	569	43.1	571	43.2	574	43.4	576	43.6	578	43.7	581	43.9	583	44.1	585	44.2	587	44.4	589	1327
1328	42.0	558	42.2	560	42.3	562	42.5	564	42.7	567	42.8	569	43.0	571	43.2	573	43.3	576	43.5	578	43.7	580	43.9	583	44.0	585	44.2	587	44.3	589	44.5	591	1328
1329	42.1	560	42.3	562	42.4	564	42.6	566	42.8	569	43.0	571	43.1	573	43.3	575	43.5	578	43.6	580	43.8	582	44.0	585	44.1	586	44.3	589	44.4	591	44.6	593	1329
1330	42.2	562	42.4	564	42.6	566	42.7	568	42.9	571	43.1	573	43.2	575	43.4	577	43.6	579	43.7	582	43.9	584	44.1	586	44.2	588	44.4	591	44.6	593	44.7	595	1330
1331	42.3	563	42.5	566	42.7	568	42.8	570	43.0	572	43.2	575	43.3	577	43.5	579	43.7	581	43.9	584	44.0	586	44.2	588	44.4	590	44.5	592	44.7	595	44.8	597	1331
1332	42.4	565	42.6	568	42.8	570	43.0	572	43.1	574	43.3	577	43.5	579	43.6	581	43.8	583	44.0	586	44.1	588	44.3	590	44.5	592	44.6	594	44.8	596	45.0	599	1332
1333	42.6	567	42.7	569	42.9	572	43.1	574	43.2	576	43.4	579	43.6	581	43.7	583	43.9	585	44.1	588	44.2	590	44.4	592	44.6	594	44.7	596	44.9	598	45.1	601	1333
1334	42.7	569	42.8	571	43.0	574	43.2	576	43.3	578	43.5	580	43.7	583	43.9	585	44.0	587	44.2	589	44.4	592	44.5	594	44.7	596	44.8	598	45.0	600	45.2	603	1334
1335	42.8	571	42.9	573	43.1	576	43.3	578	43.4	580	43.6	582	43.8	585	44.0	587	44.1	589	44.3	591	44.5	594	44.6	596	44.8	598	45.0	600	45.1	602	45.3	604	1335
1336	42.9	573	43.1	575	43.2	577	43.4	580	43.6	582	43.7	584	43.9	587	44.1	589	44.2	591	44.4	593	44.6	595	44.7	598	44.9	600	45.1	602	45.2	604	45.4	606	1336
1337	43.0	575	43.2	577	43.3	579	43.5	582	43.7	584	43.8	586	44.0	588	44.2	591	44.4	593	44.5	595	44.7	597	44.9	600	45.0	602	45.2	604	45.3	606	45.5	608	1337
1338	43.1	577	43.3	579	43.4	581	43.6	584	43.8	586	44.0	588	44.1	590	44.3	593	44.5	595	44.6	597	44.8	599	45.0	602	45.1	604	45.3	606	45.4	608	45.6	610	1338
1339	43.2	579	43.4	581	43.5	583	43.7	585	43.9	588	44.1	590	44.2	592	44.4	595	44.6	597	44.7	599	44.9	601	45.1	603	45.2	605	45.4	608	45.5	610	45.7	612	1339
1340	43.3	581	43.5	583	43.7	585	43.8	587	44.0	590	44.2	592	44.3	594	44.5	596	44.7	599	44.8	601	45.0	603	45.2	605	45.3	607	45.4	610	45.7	612	45.8	614	1340
1341	43.4	583	43.6	585	43.8	587	43.9	589	44.1	592	44.3	594	44.4	596	44.6	598	44.8	601	45.0	603	45.1	603	45.3	607	45.3	607	45.6	611	45.8	614	45.9	616	1341
1342	43.5	584	43.7	587	43.9	589	44.1	591	44.2	593	44.4	596	44.6	598	44.7	600	44.9	603	45.1	605	45.2	607	45.4	609	45.5	611	45.7	613	45.9	616	46.0	618	1342
1343	43.7	586	43.8	589	44.0	591	44.2	593	44.3	595	44.5	598	44.7	600	44.8	602	45.0	604	45.2	607	45.3	609	45.5	611	45.7	613	45.8	615	46.0	618	46.1	620	1343
1344	43.8	588	43.9	590	44.1	593	44.3	595	44.4	597	44.6	600	44.8	602	44.9	604	45.1	606	45.3	609	45.4	611	45.6	613	45.8	615	45.9	617	46.1	619	46.2	622	1344
1345	43.9	590	44.0	592	44.2	595	44.4	597	44.5	599	44.7	601	44.9	604	45.1	606	45.2	608	45.4	610	45.5	613	45.7	615	45.9	617	46.0	619	46.2	621	46.4	623	1345
1346	44.0	592	44.2	594	44.3	597	44.5	599	44.7	601	44.8	603	45.0	606	45.2	608	45.3	610	45.5	612	45.7	614	45.8	617	46.0	619	46.1	621	46.3	623	46.5	625	1346
1347	44.1	594	44.3	596	44.4	598	44.6	601	44.8	603	44.9	605	45.1	607	45.3	610	45.4	612	45.6	614	45.8	616	45.9	618	46.1	621	46.2	623	46.4	625	46.6	627	1347
1348	44.2	596	44.4	598	44.5	600	44.7	603	44.9	605	45.0	607	45.2	609	45.4	612	45.5	614	45.7	616	45.9	618	46.0	620	46.2	623	46.4	625	46.5	627	46.7	629	1348
1349	44.3	598	44.5	600	44.6	602	44.8	604	45.0	607	45.2	609	45.3	611	45.5	614	45.7	616	45.8	618	46.0	620	46.1	622	46.3	625	46.5	627	46.6	629	46.8	631	1349
1350	44.4	600	44.6	602	44.8	604	44.9	606	45.1	609	45.3	611	45.4	613	45.6	615	45.8	618	45.9	620	46.1	622	46.2	624	46.4	626	46.6	629	46.7	631	46.9	633	1350
1351	44.5	602	44.7	604	44.9	606	45.0	608	45.2	611	45.4	613	45.5	615	45.7	617	45.9	620	46.0	622	46.2	624	46.3	626	46.5	628	46.7	631	46.8	633	47.0	635	1351
1352	44.6	604	44.8	606	45.0	608	45.1	610	45.3	612	.45.5	615	45.6	617	45.8	619	46.0	622	46.1	624	46.3	626	46.5	628	46.6	630	46.8	632	47.0	635	47.1	637	1352
1353	44.7	605	44.9	608	45.1	610	45.2	612	45.4	614	45.6	617	45.7	619	45.9	621	46.1	623	46.2	625	46.4	628	46.6	630	46.7	632	46.9	634	47.1	637	47.2	639	1353
1354	44.9	607	45.0	610	45.2	612	45.4	614	45.5	616	45.7	619	45.8	621	46.0	623	46.2	625	46.3	627	46.5	630	46.7	632	46.8	634	47.0	636	47.2	639	47.3	641	1354
1355	45.0	609	45.1	612	45.3	614	45.5	616	45.6	619	45.8	620	46.0	623	46.1	625	46.3	627	46.5	629	46.6	632	46.8	634	46.9	636	47.1	638	47.3	640	47.4	643	1355
1356	45.1	611	45.2	613	45.4	616	45.6	618	45.7	620	45.9	622	46.1	625	46.2	627	46.4	629	46.6	631	46.7	634	46.9	636	47.0	638	47.2	640	47.4	642	47.5	645	1356

Table 1 (Continued)

D_t	10°C		12°C		14°C		16°C		18°C		20°C		22°C		24°C		26°C		28°C		30°C		32°C		34°C		36°C		38°C		40°C		D_t
	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	
1357	45.2	613	45.3	615	45.5	618	45.7	620	45.8	622	46.0	624	46.2	627	46.3	629	46.5	631	46.7	633	46.8	635	47.0	638	47.2	640	47.3	642	47.5	644	47.6	646	1357
1358	45.3	615	45.5	617	45.6	620	45.8	622	46.0	624	46.1	626	46.3	628	46.4	631	46.6	633	46.8	635	46.9	637	47.1	640	47.3	643	47.4	644	47.6	646	47.7	648	1358
1359	45.4	617	45.6	619	45.7	621	45.9	624	46.1	626	46.2	628	46.4	630	46.6	633	46.7	635	46.9	637	47.0	639	47.2	641	47.4	644	47.5	646	47.7	648	47.9	650	1359
1360	45.5	619	45.7	621	45.8	623	46.0	626	46.2	628	46.3	630	46.5	632	46.7	635	46.8	637	47.0	639	47.1	641	47.3	642	47.5	646	47.6	648	47.8	650	48.0	652	1360
1361	45.6	621	45.8	623	45.9	625	46.1	627	46.3	630	46.4	632	46.6	634	46.8	637	46.9	639	47.1	641	47.2	643	47.4	645	47.6	648	47.7	650	47.9	652	48.1	654	1361
1362	45.7	623	45.9	625	46.1	627	46.2	629	46.4	632	46.5	634	46.7	636	46.9	638	47.0	641	47.2	643	47.4	645	47.5	647	47.7	649	47.8	652	48.0	654	48.2	655	1362
1363	45.8	625	46.0	627	46.2	629	46.3	631	46.5	634	46.6	636	46.8	638	47.0	640	47.1	643	47.3	645	47.5	647	47.6	649	47.8	651	47.9	654	48.1	656	48.3	658	1363
1364	45.9	627	46.1	629	46.3	631	46.4	633	46.6	635	46.8	638	46.9	640	47.1	642	47.2	644	47.4	647	47.6	649	47.7	651	47.9	653	48.1	655	48.2	658	48.4	660	1364
1365	46.0	628	46.2	631	46.4	633	46.5	635	46.7	637	46.9	640	47.0	642	47.2	644	47.3	646	47.5	649	47.7	651	47.8	653	48.0	655	48.2	658	48.3	660	48.5	662	1365
1366	46.1	630	46.3	633	46.5	635	46.6	637	46.8	639	47.0	642	47.1	644	47.3	646	47.5	648	47.6	650	47.8	653	47.9	655	48.1	657	48.3	659	48.4	662	48.6	664	1366
1367	46.3	632	46.4	635	46.6	636	46.7	639	46.9	641	47.1	643	47.2	646	47.4	650	47.6	650	47.7	652	47.9	655	48.0	657	48.2	659	48.4	661	48.5	664	48.7	665	1367
1368	46.4	634	46.5	636	46.7	639	46.8	641	47.0	643	47.2	645	47.3	648	47.5	650	47.7	652	47.8	654	48.0	657	48.1	659	48.3	661	48.4	663	48.6	665	48.8	668	1368
1369	46.5	636	46.6	638	46.8	641	47.0	643	47.1	645	47.3	647	47.4	649	47.6	652	47.8	654	47.9	656	48.1	658	48.3	661	48.4	663	48.6	665	48.7	667	48.9	669	1369
1370	46.6	638	46.7	640	46.9	643	47.1	645	47.2	647	47.4	649	47.6	651	47.7	654	47.9	656	48.0	658	48.2	660	48.4	663	48.5	665	48.7	667	48.9	669	49.0	671	1370
1371	46.7	640	46.8	642	47.0	645	47.2	647	47.3	649	47.5	651	47.7	653	47.8	656	48.0	658	48.1	660	48.3	662	48.5	665	48.6	667	48.8	669	49.0	671	49.1	673	1371
1372	46.8	642	46.9	644	47.1	646	47.3	649	47.4	651	47.6	653	47.8	655	47.9	658	48.1	660	48.3	662	48.4	664	48.6	666	48.7	669	48.9	671	49.1	673	49.2	675	1372
1373	46.9	644	47.1	646	47.2	648	47.4	651	47.5	653	47.7	655	47.9	657	48.0	659	48.2	662	48.4	664	48.5	666	48.7	668	48.8	671	49.0	673	49.2	675	49.3	677	1373
1374	47.0	646	47.2	648	47.3	650	47.5	652	47.7	655	47.8	657	48.0	659	48.1	661	48.3	664	48.5	666	48.6	668	48.8	670	48.9	673	49.1	675	49.3	677	49.4	679	1374
1375	47.1	648	47.3	650	47.4	652	47.6	654	47.8	657	47.9	659	48.1	661	48.2	663	48.4	666	48.6	668	48.7	670	48.9	672	49.1	674	49.2	677	49.4	679	49.5	681	1375
1376	47.2	650	47.4	652	47.5	654	47.7	656	47.9	659	48.0	661	48.2	663	48.4	665	48.5	667	48.7	670	48.8	672	49.0	674	49.2	676	49.3	679	49.5	681	49.6	683	1376
1377	47.3	652	47.5	654	47.6	656	47.8	658	48.0	661	48.1	663	48.3	665	48.5	667	48.6	669	48.8	672	48.9	674	49.1	676	49.3	678	49.4	681	49.6	683	49.7	685	1377
1378	47.4	653	47.6	656	47.8	658	47.9	660	48.1	662	48.2	665	48.4	667	48.6	669	48.7	671	48.9	674	49.1	676	49.2	678	49.4	680	49.5	682	49.7	685	49.8	687	1378
1379	47.5	655	47.7	658	47.9	660	48.0	662	48.2	664	48.3	666	48.5	669	48.7	671	48.8	673	49.0	676	49.2	678	49.3	680	49.5	682	49.6	684	49.8	687	49.9	689	1379
1380	47.6	657	47.8	660	48.0	662	48.1	664	48.3	666	48.4	668	48.6	671	48.8	673	49.0	675	49.1	677	49.3	681	49.4	682	49.6	684	49.7	686	49.9	688	50.1	691	1380
1381	47.7	660	47.9	661	48.1	664	48.2	666	48.4	668	48.5	670	48.7	673	48.9	675	49.0	677	49.2	679	49.4	682	49.5	684	49.7	686	49.8	688	50.0	691	50.2	693	1381
1382	47.8	661	48.0	663	48.2	666	48.3	668	48.5	670	48.6	672	48.8	675	49.0	677	49.1	679	49.3	681	49.5	684	49.6	686	49.8	688	49.9	690	50.1	692	50.3	694	1382
1383	47.9	663	48.1	665	48.3	668	48.4	670	48.6	672	48.7	674	48.9	677	49.1	679	49.2	681	49.4	683	49.6	685	49.7	688	49.9	690	50.0	692	50.2	694	50.4	696	1383
1384	48.1	665	48.2	667	48.4	670	48.5	672	48.7	674	48.9	676	49.0	678	49.2	681	49.3	683	49.5	685	49.7	687	49.8	690	50.0	692	50.1	694	50.3	696	50.5	698	1384
1385	48.2	667	48.3	669	48.5	671	48.6	674	48.8	676	49.0	678	49.1	680	49.3	683	49.4	685	49.6	687	49.8	689	49.9	692	50.1	694	50.2	696	50.4	698	50.6	700	1385
1386	48.3	669	48.4	671	48.6	673	48.7	676	48.9	678	49.1	680	49.2	682	49.4	685	49.5	687	49.7	689	49.9	691	50.0	693	50.2	696	50.3	698	50.5	700	50.7	702	1386
1387	48.4	671	48.5	673	48.7	675	48.8	677	49.0	680	49.2	682	49.3	684	49.5	686	49.6	689	49.8	691	50.0	693	50.1	695	50.3	698	50.4	700	50.6	702	50.8	704	1387
1388	48.5	673	48.6	675	48.8	677	48.9	679	49.1	682	49.3	684	49.4	686	49.6	688	49.8	691	49.9	693	50.1	695	50.2	697	50.4	699	50.5	702	50.7	704	50.9	706	1388
1389	48.6	675	48.7	677	48.9	679	49.1	681	49.2	684	49.4	686	49.5	688	49.7	690	49.9	692	50.0	695	50.2	697	50.3	699	50.5	701	50.6	704	50.8	706	51.0	708	1389
1390	48.7	677	48.8	679	49.0	681	49.2	683	49.3	686	49.5	688	49.6	690	49.8	692	50.0	694	50.1	697	50.3	699	50.4	701	50.6	703	50.7	705	50.9	708	51.1	710	1390
1391	48.8	679	48.9	681	49.1	683	49.3	685	49.4	687	49.6	690	49.7	692	49.9	694	50.1	696	50.2	699	50.4	701	50.5	703	50.7	705	50.9	707	51.0	710	51.2	712	1391
1392	48.9	680	49.0	683	49.2	685	49.4	687	49.5	689	49.7	692	49.8	694	50.0	696	50.2	698	50.3	700	50.5	703	50.6	705	50.8	707	51.0	709	51.1	712	51.3	714	1392

Table 1 (*Continued*)

t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1393	49·0	682	49·1	685	49·3	687	49·5	689	49·6	691	49·8	693	49·9	696	50·1	698	50·3	700	50·4	702	50·6	705	50·7	707	50·9	709	51·1	711	51·2	713	51·4	716	1393
1394	49·1	684	49·2	687	49·4	689	49·6	691	49·7	693	49·9	695	50·0	698	50·2	700	50·4	702	50·5	704	50·7	707	50·8	709	51·0	711	51·2	713	51·3	716	51·5	718	1394
1395	49·2	686	49·4	688	49·5	691	49·7	693	49·8	695	50·0	697	50·2	700	50·3	702	50·5	704	50·6	706	50·8	709	50·9	711	51·1	713	51·3	715	51·4	718	51·6	720	1395
1396	49·3	688	49·5	690	49·6	693	49·8	695	49·9	697	50·1	699	50·3	701	50·4	704	50·6	706	50·7	708	50·9	711	51·0	713	51·2	715	51·4	717	51·5	719	51·7	721	1396
1397	49·4	690	49·6	692	49·7	694	49·9	697	50·0	699	50·2	701	50·4	704	50·5	706	50·7	708	50·8	710	51·0	712	51·2	715	51·3	717	51·5	719	51·6	721	51·8	724	1397
1398	49·5	692	49·7	694	49·8	696	50·0	699	50·1	701	50·3	703	50·5	705	50·6	708	50·8	710	50·9	712	51·1	714	51·3	716	51·4	719	51·6	721	51·7	723	51·9	725	1398
1399	49·6	694	49·8	696	49·9	698	50·1	701	50·2	703	50·4	705	50·6	707	50·7	710	50·9	712	51·0	714	51·2	716	51·4	718	51·5	721	51·7	723	51·8	725	52·0	727	1399
1400	49·7	696	49·9	698	50·0	700	50·2	703	50·3	705	50·5	707	50·7	709	50·8	711	51·0	714	51·1	716	51·3	718	51·5	720	51·6	723	51·8	725	51·9	727	52·1	729	1400
1401	49·8	698	50·0	700	50·1	702	50·3	704	50·4	707	50·6	709	50·8	711	50·9	713	51·1	716	51·2	718	51·4	720	51·6	722	51·7	724	51·9	727	52·0	729	52·2	731	1401
1402	49·9	700	50·1	702	50·2	704	50·4	706	50·5	709	50·7	711	50·9	713	51·0	715	51·2	718	51·3	720	51·5	722	51·7	724	51·8	727	52·0	729	52·1	731	52·3	733	1402
1403	50·0	702	50·2	704	50·3	706	50·5	708	50·6	710	50·8	713	51·0	715	51·1	717	51·3	719	51·4	722	51·6	724	51·8	726	51·9	728	52·1	731	52·2	733	52·4	735	1403
1404	50·1	704	50·3	706	50·4	708	50·6	710	50·7	713	50·9	715	51·1	717	51·2	719	51·4	721	51·5	724	51·7	726	51·9	728	52·0	730	52·2	733	52·3	735	52·5	737	1404
1405	50·2	705	50·4	708	50·5	710	50·7	712	50·8	714	51·0	717	51·2	719	51·3	721	51·5	723	51·6	726	51·8	728	52·0	730	52·1	732	52·3	735	52·4	737	52·6	739	1405
1406	50·3	707	50·5	710	50·6	712	50·8	714	50·9	716	51·1	719	51·3	721	51·4	723	51·6	725	51·7	727	51·9	730	52·1	732	52·2	734	52·4	736	52·5	739	52·7	741	1406
1407	50·4	709	50·6	712	50·7	714	50·9	716	51·0	718	51·2	721	51·4	723	51·5	725	51·7	727	51·8	729	52·0	732	52·2	734	52·3	736	52·5	738	52·6	741	52·8	743	1407
1408	50·5	711	50·7	714	50·8	716	51·0	718	51·1	720	51·3	722	51·5	725	51·6	727	51·8	729	51·9	731	52·1	734	52·3	736	52·4	738	52·6	740	52·7	742	52·9	745	1408
1409	50·6	713	50·8	715	50·9	718	51·1	720	51·2	722	51·4	724	51·6	727	51·7	729	51·9	731	52·0	733	52·2	736	52·4	738	52·5	740	52·7	742	52·8	744	53·0	747	1409
1410	50·7	715	50·9	717	51·0	720	51·2	722	51·4	724	51·5	726	51·7	729	51·8	731	52·0	733	52·1	735	52·3	738	52·5	740	52·6	742	52·8	744	52·9	746	53·1	749	1410
1411	50·8	717	51·0	719	51·1	722	51·3	724	51·5	726	51·6	728	51·8	730	51·9	733	52·1	735	52·2	737	52·4	740	52·6	742	52·7	744	52·9	746	53·0	748	53·2	751	1411
1412	50·9	719	51·1	721	51·2	724	51·4	726	51·6	728	51·7	730	51·9	732	52·0	735	52·2	737	52·3	739	52·5	741	52·7	744	52·8	746	53·0	748	53·1	750	53·3	752	1412
1413	51·0	721	51·2	723	51·3	725	51·5	728	51·7	730	51·8	732	52·0	734	52·1	737	52·3	739	52·4	741	52·6	743	52·8	745	52·9	748	53·1	750	53·2	752	53·4	754	1413
1414	51·1	723	51·3	725	51·4	727	51·6	729	51·7	732	51·9	734	52·1	736	52·2	739	52·4	741	52·5	743	52·7	745	52·9	747	53·0	750	53·2	752	53·3	754	53·5	756	1414
1415	51·2	725	51·4	727	51·5	729	51·7	731	51·8	734	52·0	736	52·2	738	52·3	740	52·5	743	52·6	745	52·8	747	53·0	749	53·1	752	53·3	754	53·4	756	53·6	758	1415
1416	51·3	727	51·5	729	51·6	731	51·8	733	52·0	736	52·1	738	52·3	740	52·4	742	52·6	745	52·7	747	52·9	749	53·1	751	53·2	754	53·4	756	53·5	758	53·7	760	1416
1417	51·4	729	51·6	731	51·7	733	51·9	735	52·1	738	52·2	740	52·4	742	52·5	744	52·7	746	52·8	749	53·0	751	53·2	753	53·3	756	53·5	758	53·6	760	53·8	762	1417
1418	51·5	731	51·7	733	51·8	735	52·0	737	52·1	739	52·3	742	52·5	744	52·6	746	52·8	748	52·9	751	53·1	753	53·3	755	53·4	758	53·6	760	53·7	762	53·9	764	1418
1419	51·6	732	51·8	735	51·9	737	52·1	739	52·3	741	52·4	744	52·6	746	52·7	748	52·9	750	53·0	753	53·2	755	53·4	757	53·5	760	53·7	762	53·8	764	54·0	766	1419
1420	51·7	734	51·9	737	52·0	739	52·2	741	52·4	743	52·5	746	52·7	748	52·8	750	53·0	752	53·1	755	53·3	757	53·5	759	53·6	762	53·8	764	53·9	766	54·1	768	1420
1421	51·8	736	52·0	739	52·1	741	52·3	743	52·5	745	52·6	748	52·8	750	52·9	752	53·1	754	53·2	757	53·4	759	53·6	761	53·7	764	53·9	766	54·0	768	54·2	770	1421
1422	51·9	738	52·1	741	52·2	743	52·4	745	52·5	747	52·7	750	52·9	752	53·0	754	53·2	756	53·3	758	53·5	761	53·7	763	53·8	766	54·0	768	54·1	770	54·3	772	1422
1423	52·0	740	52·2	743	52·3	745	52·5	747	52·7	749	52·8	752	53·0	754	53·1	756	53·3	758	53·4	760	53·6	763	53·8	765	53·9	768	54·1	770	54·2	772	54·4	774	1423
1424	52·1	742	52·3	744	52·4	747	52·6	749	52·7	751	52·9	754	53·1	756	53·2	758	53·4	760	53·5	762	53·7	765	53·9	767	54·0	770	54·2	772	54·3	774	54·5	776	1424
1425	52·2	744	52·4	746	52·5	749	52·7	751	52·8	753	53·0	756	53·2	758	53·3	760	53·5	762	53·6	764	53·8	767	54·0	769	54·1	772	54·3	773	54·4	776	54·6	778	1425
1426	52·3	746	52·5	748	52·6	751	52·8	753	52·9	755	53·1	757	53·3	760	53·4	762	53·6	764	53·7	766	53·9	769	54·1	771	54·2	773	54·4	775	54·5	777	54·7	780	1426
1427	52·4	748	52·6	750	52·7	752	52·9	755	53·0	757	53·2	759	53·4	762	53·5	764	53·7	766	53·8	768	54·0	771	54·2	773	54·3	775	54·5	777	54·6	779	54·8	782	1427
1428	52·5	750	52·7	752	52·8	754	53·0	757	53·1	759	53·3	761	53·5	763	53·6	766	53·8	768	53·9	770	54·1	773	54·3	775	54·4	777	54·6	779	54·7	781	54·9	784	1428

13

IS 4048 : 1989

Table 1 (Continued)

IS 4048 : 1989

14

t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1429	52·6	752	52·8	754	52·9	756	53·1	759	53·2	761	53·4	763	53·6	765	53·7	768	53·9	770	54·0	772	54·2	775	54·4	777	54·5	779	54·7	781	54·8	783	55·0	786	1429
1430	52·7	754	52·9	756	53·0	758	53·2	761	53·3	763	53·5	765	53·7	767	53·8	770	54·0	772	54·1	774	54·3	776	54·5	779	54·6	781	54·8	783	54·9	785	55·1	788	1430
1431	52·8	756	53·0	758	53·1	760	53·3	763	53·4	765	53·6	767	53·8	769	53·9	772	54·1	774	54·2	776	54·4	778	54·5	781	54·7	783	54·9	785	55·0	787	55·2	789	1431
1432	52·9	758	53·1	760	53·2	762	53·4	765	53·5	767	53·7	769	53·9	771	54·0	774	54·2	776	54·3	778	54·5	780	54·6	783	54·8	785	55·0	787	55·1	789	55·3	791	1432
1433	53·0	760	53·2	762	53·3	764	53·5	767	53·6	769	53·8	771	54·0	773	54·1	776	54·3	778	54·4	780	54·6	782	54·7	784	54·9	787	55·1	789	55·2	791	55·4	793	1433
1434	53·1	762	53·3	764	53·4	766	53·6	768	53·7	771	53·9	773	54·1	775	54·2	777	54·4	780	54·5	782	54·7	784	54·8	786	55·0	789	55·2	791	55·3	793	55·5	795	1434
1435	53·2	764	53·4	766	53·5	768	53·7	770	53·8	773	54·0	775	54·2	777	54·3	779	54·5	782	54·6	784	54·8	786	54·9	788	55·1	791	55·3	793	55·4	795	55·6	797	1435
1436	53·3	766	53·5	768	53·6	770	53·8	772	53·9	775	54·1	777	54·3	779	54·4	781	54·6	784	54·7	786	54·9	788	55·0	790	55·2	793	55·4	795	55·5	797	55·7	799	1436
1437	53·4	767	53·6	770	53·7	772	53·9	774	54·0	777	54·2	779	54·4	781	54·5	783	54·7	785	54·8	788	55·0	790	55·1	792	55·3	795	55·4	797	55·6	799	55·7	801	1437
1438	53·5	769	53·7	772	53·8	774	54·0	776	54·1	779	54·3	781	54·5	783	54·6	785	54·8	787	54·9	790	55·1	792	55·2	794	55·4	797	55·5	799	55·7	801	55·8	803	1438
1439	53·6	771	53·8	774	53·9	776	54·1	778	54·2	780	54·4	783	54·5	785	54·7	787	54·9	789	55·0	792	55·2	794	55·3	796	55·5	799	55·6	801	55·8	803	55·9	805	1439
1440	53·7	773	53·9	776	54·0	778	54·2	780	54·3	782	54·5	785	54·6	787	54·8	789	55·0	791	55·1	794	55·3	796	55·4	798	55·6	800	55·7	803	55·9	805	56·0	807	1440
1441	53·8	775	54·0	778	54·1	780	54·3	782	54·4	784	54·6	786	54·7	789	54·9	791	55·1	793	55·2	796	55·4	798	55·5	800	55·7	802	55·8	805	56·0	807	56·1	809	1441
1442	53·9	777	54·1	780	54·2	782	54·4	784	54·5	786	54·7	788	54·8	790	55·0	793	55·2	795	55·3	798	55·5	800	55·6	802	55·8	804	55·9	807	56·1	809	56·2	811	1442
1443	54·0	779	54·2	782	54·3	784	54·5	786	54·6	788	54·8	790	54·9	793	55·1	795	55·3	797	55·4	800	55·6	802	55·7	804	55·9	806	56·0	809	56·2	811	56·3	813	1443
1444	54·1	781	54·3	783	54·4	786	54·6	788	54·7	790	54·9	792	55·0	795	55·2	797	55·3	799	55·5	801	55·7	804	55·8	806	56·0	808	56·1	810	56·3	813	56·4	815	1444
1445	54·2	783	54·3	785	54·5	788	54·7	790	54·8	792	55·0	794	55·1	797	55·3	799	55·4	801	55·6	803	55·8	806	55·9	808	56·1	810	56·2	812	56·4	814	56·5	817	1445
1446	54·3	785	54·4	787	54·6	790	54·8	792	54·9	794	55·1	796	55·2	799	55·4	801	55·5	803	55·7	805	55·9	808	56·0	810	56·2	812	56·3	814	56·5	816	56·6	819	1446
1447	54·4	787	54·5	789	54·7	791	54·8	794	55·0	796	55·2	799	55·3	801	55·5	803	55·6	805	55·8	807	56·0	810	56·1	812	56·3	814	56·4	816	56·6	818	56·7	821	1447
1448	54·5	789	54·6	791	54·8	793	54·9	796	55·1	798	55·3	800	55·4	802	55·6	305	55·7	807	55·9	809	56·0	812	56·2	814	56·4	816	56·5	818	56·7	820	56·8	823	1448
1449	54·6	791	54·7	793	54·9	795	55·0	798	55·2	800	55·4	802	55·5	804	55·7	807	55·8	809	56·0	811	56·1	813	56·3	816	56·5	818	56·6	820	56·8	822	56·9	824	1449
1450	54·7	793	54·8	795	55·0	797	55·1	800	55·3	802	55·5	804	55·6	806	55·8	809	55·9	811	56·1	813	56·2	815	56·4	818	56·5	820	56·7	822	56·8	824	57·0	827	1450
1451	54·8	795	54·9	797	55·1	799	55·2	801	55·4	804	55·5	806	55·7	808	55·9	811	56·0	813	56·2	815	56·3	817	56·5	820	56·6	822	56·8	824	56·9	826	57·1	829	1451
1452	54·9	796	55·0	799	55·2	801	55·3	803	55·5	806	55·6	808	55·8	810	56·0	813	56·1	815	56·3	817	56·4	819	56·6	822	56·7	824	56·9	826	57·0	828	57·2	830	1452
1453	55·0	798	55·1	801	55·3	803	55·4	805	55·6	808	55·7	810	55·9	812	56·1	815	56·2	817	56·4	819	56·5	821	56·7	823	56·8	826	57·0	828	57·1	830	57·3	832	1453
1454	55·0	800	55·2	803	55·4	805	55·5	807	55·7	810	55·8	812	56·0	814	56·2	816	56·3	819	56·5	821	56·6	823	56·8	825	56·9	828	57·1	830	57·2	832	57·4	834	1454
1455	55·1	802	55·3	805	55·5	807	55·6	809	55·8	812	55·9	814	56·1	816	56·2	818	56·4	821	56·6	823	56·7	825	56·9	827	57·0	830	57·2	832	57·3	834	57·5	836	1455
1456	55·2	804	55·4	807	55·6	809	55·7	811	55·9	814	56·0	816	56·2	818	56·3	820	56·5	822	56·7	825	56·8	827	57·0	829	57·1	832	57·3	834	57·4	836	57·6	838	1456
1457	55·3	806	55·5	808	55·7	811	55·8	813	56·0	815	56·1	818	56·3	820	56·4	822	56·6	825	56·8	827	56·9	829	57·1	831	57·2	834	57·4	836	57·5	838	57·7	840	1457
1458	55·4	808	55·6	811	55·8	813	55·9	815	56·1	818	56·2	820	56·4	822	56·5	824	56·7	826	56·8	829	57·0	831	57·2	833	57·3	836	57·5	838	57·6	840	57·8	842	1458
1459	55·5	810	55·7	812	55·8	815	56·0	817	56·2	819	56·3	822	56·5	824	56·6	826	56·8	828	56·9	831	57·1	833	57·2	835	57·4	838	57·6	840	57·7	842	57·9	844	1459
1460	55·6	812	55·8	814	55·9	817	56·1	819	56·3	821	56·4	824	56·6	826	56·7	828	56·9	830	57·0	833	57·2	835	57·3	837	57·5	840	57·7	842	57·8	844	58·0	846	1460
1461	55·7	814	55·9	816	56·0	819	56·2	821	56·4	823	56·5	825	56·7	828	56·8	830	57·0	832	57·1	835	57·3	837	57·4	839	57·6	842	57·7	844	57·9	846	58·1	848	1461
1462	55·8	816	56·0	818	56·1	821	56·3	823	56·4	825	56·6	837	56·7	830	56·9	832	57·1	834	57·2	837	57·4	839	57·5	841	57·7	844	57·8	846	58·0	848	58·2	850	1462
1463	55·9	818	56·1	820	56·2	823	56·4	825	56·5	827	56·7	829	56·9	832	57·0	834	57·2	836	57·3	839	57·5	841	57·6	843	57·8	845	57·9	848	58·1	850	58·2	852	1463
1464	56·0	820	56·2	822	56·3	825	56·5	827	56·6	829	56·8	831	56·9	834	57·1	836	57·3	838	57·4	841	57·6	843	57·7	845	57·9	848	58·0	850	58·2	852	58·3	854	1464

Table 1 (*Continued*)

D_t	10 °C g	G	12 °C g	G	14 °C g	G	16 °C g	G	18 °C g	G	20 °C g	G	22 °C g	G	24 °C g	G	26 °C g	G	28 °C g	G	30 °C g	G	32 °C g	G	34 °C g	G	36 °C g	G	38 °C g	G	40 °C g	G	D_t
1465	56.1	822	56.3	824	56.4	827	56.6	829	56.7	831	56.9	833	57.0	836	57.2	838	57.4	840	57.5	843	57.7	845	57.8	847	58.0	849	58.1	852	58.3	854	58.4	856	1465
1466	56.2	824	56.3	826	56.5	828	56.7	831	56.8	833	57.0	835	57.1	838	57.3	840	57.4	842	57.6	845	57.8	847	57.9	849	58.1	851	58.2	854	58.4	856	58.5	858	1466
1467	56.3	826	56.4	828	56.6	830	56.8	833	56.9	835	57.1	837	57.2	840	57.4	842	57.5	844	57.7	846	57.9	849	58.0	851	58.2	853	58.3	856	58.5	858	58.6	860	1467
1468	56.4	828	56.5	830	56.7	832	56.9	835	57.0	837	57.2	839	57.3	841	57.5	844	57.6	846	57.8	849	58.0	851	58.1	853	58.3	855	58.4	858	58.6	860	58.7	862	1468
1469	56.5	830	56.6	832	56.8	834	57.0	837	57.1	839	57.3	841	57.4	843	57.6	846	57.7	848	57.9	850	58.0	853	58.2	855	58.4	857	58.5	860	58.7	862	58.8	864	1469
1470	56.6	832	56.7	834	56.9	836	57.0	839	57.2	841	57.4	843	57.5	845	57.7	848	57.8	850	58.0	852	58.1	855	58.3	857	58.5	859	58.6	862	58.8	864	58.9	866	1470
1471	56.7	833	56.8	836	57.0	838	57.1	841	57.3	843	57.5	845	57.6	847	57.8	850	57.9	852	58.1	854	58.2	857	58.4	859	58.5	861	58.7	863	58.9	866	59.0	868	1471
1472	56.8	835	56.9	838	57.1	840	57.2	842	57.4	845	57.5	847	57.7	849	57.9	852	58.0	854	58.2	856	58.3	859	58.5	861	58.6	863	58.8	866	58.9	868	59.1	870	1472
1473	56.8	837	57.0	840	57.2	842	57.3	844	57.5	847	57.6	849	57.8	851	57.9	854	58.1	856	58.3	858	58.4	861	58.6	863	58.7	865	58.9	867	59.0	870	59.2	872	1473
1474	56.9	839	57.1	842	57.3	844	57.4	846	57.6	849	57.7	851	57.9	853	58.0	856	58.2	858	58.4	860	58.5	863	58.7	865	58.8	867	59.0	870	59.1	872	59.3	874	1474
1475	57.0	841	57.2	844	57.4	846	57.5	848	57.7	851	57.8	853	58.0	855	58.1	858	58.3	860	58.5	862	58.6	864	58.8	867	58.9	869	59.1	871	59.2	874	59.4	876	1475
1476	57.1	843	57.3	846	57.5	848	57.6	850	57.8	853	57.9	855	58.1	857	58.2	860	58.4	862	58.6	864	58.7	867	58.9	869	59.0	871	59.2	873	59.3	876	59.5	878	1476
1477	57.2	845	57.4	848	57.6	850	57.7	852	57.9	855	58.0	857	58.2	859	58.3	862	58.5	864	58.6	866	58.8	868	59.0	871	59.1	873	59.3	875	59.4	878	59.6	880	1477
1478	57.3	847	57.5	850	57.7	852	57.8	854	58.0	857	58.1	859	58.3	861	58.4	864	58.6	866	58.7	868	58.9	871	59.1	873	59.2	875	59.4	877	59.5	880	59.7	882	1478
1479	57.4	849	57.6	852	57.7	854	57.9	856	58.1	859	58.2	861	58.4	863	58.5	866	58.7	868	58.8	870	59.0	872	59.1	875	59.3	877	59.5	879	59.6	881	59.8	884	1479
1480	57.5	851	57.7	854	57.8	856	58.0	858	58.2	861	58.3	863	58.5	865	58.6	867	58.8	870	58.9	872	59.1	874	59.2	877	59.4	879	59.5	881	59.7	883	59.9	886	1480
1481	57.6	853	57.8	856	57.9	858	58.1	860	58.2	863	58.4	865	58.5	867	58.7	869	58.9	872	59.0	874	59.2	876	59.3	879	59.5	881	59.6	883	59.8	885	59.9	888	1481
1482	57.7	855	57.9	857	58.0	860	58.2	862	58.3	864	58.5	867	58.6	869	58.8	871	59.0	874	59.1	876	59.3	878	59.4	881	59.6	883	59.7	885	59.9	887	60.0	890	1482
1483	57.8	857	58.0	859	58.1	862	58.3	864	58.4	867	58.6	869	58.7	871	58.9	873	59.1	876	59.2	878	59.4	880	59.5	883	59.7	885	59.8	887	60.0	889	60.1	892	1483
1484	57.9	859	58.0	861	58.2	864	58.4	866	58.5	868	58.7	871	58.8	873	59.0	875	59.1	878	59.3	880	59.5	882	59.6	885	59.8	887	59.9	889	60.1	891	60.2	894	1484
1485	58.0	861	58.1	863	58.3	866	58.5	868	58.6	871	58.8	873	58.9	875	59.1	877	59.2	880	59.4	882	59.6	884	59.7	887	59.8	889	60.0	891	60.2	893	60.3	896	1485
1486	58.1	863	58.2	865	58.4	868	58.6	870	58.7	872	58.9	875	59.0	877	59.2	879	59.3	882	59.5	884	59.6	886	59.8	888	59.9	891	60.1	893	60.3	895	60.4	898	1486
1487	58.2	865	58.3	867	58.5	870	58.6	872	58.8	874	59.0	877	59.1	879	59.3	881	59.4	884	59.6	886	59.7	888	59.9	891	60.0	893	60.2	895	60.3	897	60.5	900	1487
1488	58.3	867	58.4	869	58.6	872	58.7	874	58.9	876	59.0	879	59.2	881	59.4	883	59.5	886	59.7	888	59.8	890	60.0	893	60.1	895	60.3	897	60.4	899	60.6	902	1488
1489	58.4	869	58.5	871	58.7	874	58.8	876	59.0	878	59.1	881	59.3	883	59.5	885	59.6	888	59.8	890	59.9	892	60.1	895	60.2	897	60.4	899	60.5	901	60.7	904	1489
1490	58.4	871	58.6	873	58.8	876	58.9	878	59.1	880	59.2	883	59.4	885	59.5	887	59.7	890	59.9	892	60.0	894	60.2	897	60.3	899	60.5	901	60.6	903	60.8	906	1490
1491	58.5	873	58.7	875	58.9	878	59.0	880	59.2	882	59.3	884	59.5	887	59.6	889	59.8	892	60.0	894	60.1	896	60.3	898	60.4	901	60.6	903	60.7	905	60.9	908	1491
1492	58.6	875	58.8	877	59.0	880	59.1	882	59.3	884	59.4	887	59.6	889	59.7	891	59.9	894	60.0	896	60.2	899	60.3	900	60.5	903	60.7	905	60.8	907	61.0	910	1492
1493	58.7	877	58.9	879	59.0	882	59.2	884	59.4	886	59.5	888	59.7	891	59.8	893	60.0	896	60.1	898	60.3	900	60.4	903	60.6	905	60.8	907	60.9	910	61.1	912	1493
1494	58.8	879	59.0	881	59.1	884	59.3	886	59.4	888	59.6	890	59.8	893	59.9	895	60.1	897	60.2	900	60.4	902	60.5	904	60.7	907	60.8	909	61.0	911	61.2	914	1494
1495	58.9	881	59.1	883	59.2	885	59.4	888	59.5	890	59.7	892	59.9	895	60.0	897	60.2	900	60.3	902	60.5	904	60.6	906	60.8	909	60.9	911	61.1	913	61.2	916	1495
1496	59.0	883	59.2	885	59.3	888	59.5	890	59.6	892	59.8	894	59.9	897	60.1	899	60.3	901	60.4	904	60.6	906	60.7	909	60.9	911	61.0	913	61.2	915	61.3	918	1496
1497	59.1	885	59.3	887	59.4	890	59.6	892	59.7	894	59.9	896	60.0	899	60.2	901	60.4	903	60.5	906	60.7	908	60.8	910	61.0	913	61.1	915	61.3	917	61.4	920	1497
1498	59.2	887	59.4	889	59.5	891	59.7	894	59.8	896	60.0	898	60.1	901	60.3	903	60.4	905	60.6	908	60.8	910	60.9	912	61.1	915	61.2	917	61.4	919	61.5	922	1498
1499	59.3	889	59.5	891	59.6	894	59.8	896	59.9	898	60.1	900	60.2	903	60.4	905	60.5	907	60.7	910	60.9	912	61.0	915	61.2	917	61.3	919	61.5	921	61.6	924	1499
1500	59.4	891	59.5	893	59.7	896	59.9	898	60.0	900	60.2	902	60.3	905	60.5	907	60.6	909	60.8	912	60.9	914	61.1	917	61.2	919	61.4	921	61.6	923	61.7	926	1500

Table 1 (Continued)

D_t	10°C g	10°C G	12°C g	12°C G	14°C g	14°C G	16°C g	16°C G	18°C g	18°C G	20°C g	20°C G	22°C g	22°C G	24°C g	24°C G	26°C g	26°C G	28°C g	28°C G	30°C g	30°C G	32°C g	32°C G	34°C g	34°C G	36°C g	36°C G	38°C g	38°C G	40°C g	40°C G	D_t
1501	59.5	893	59.6	895	59.8	897	59.9	900	60.1	902	60.3	904	60.4	907	60.6	909	60.7	911	60.9	914	61.0	916	61.2	918	61.3	921	61.5	923	61.7	925	61.8	928	1501
1502	59.6	895	59.7	897	59.9	900	60.0	902	60.2	904	60.3	906	60.5	909	60.7	911	60.8	913	61.0	916	61.1	918	61.3	920	61.4	923	61.6	925	61.7	927	61.9	930	1502
1503	59.7	897	59.8	899	60.0	901	60.1	904	60.3	906	60.4	908	60.6	911	60.8	913	60.9	915	61.1	918	61.2	920	61.4	922	61.5	925	61.7	927	61.8	929	62.0	932	1503
1504	59.8	899	59.9	901	60.1	903	60.2	906	60.4	908	60.5	910	60.7	913	60.8	915	61.0	917	61.2	920	61.3	922	61.5	925	61.6	927	61.8	929	61.9	931	62.1	934	1504
1505	59.8	901	60.0	903	60.2	905	60.3	908	60.5	910	60.6	912	60.8	915	60.9	917	61.1	919	61.2	922	61.4	924	61.6	926	61.7	929	61.9	931	62.0	933	62.2	936	1505
1506	59.9	903	60.1	905	60.3	907	60.4	910	60.5	912	60.7	914	60.9	917	61.0	919	61.2	921	61.3	924	61.5	926	61.7	928	61.8	931	62.0	933	62.1	935	62.3	938	1506
1507	60.0	905	60.2	907	60.3	909	60.5	912	60.6	914	60.8	916	61.0	919	61.1	921	61.3	923	61.4	926	61.6	928	61.7	930	61.9	933	62.1	935	62.2	937	62.4	940	1507
1508	60.1	907	60.3	909	60.4	911	60.6	914	60.7	916	60.9	918	61.1	921	61.2	923	61.4	925	61.5	928	61.7	930	61.8	932	62.0	935	62.1	937	62.3	939	62.4	942	1508
1509	60.2	909	60.4	911	60.5	913	60.7	916	60.8	918	61.0	920	61.1	923	61.3	925	61.5	927	61.6	930	61.8	932	61.9	935	62.1	937	62.2	939	62.4	941	62.5	944	1509
1510	60.3	911	60.5	913	60.6	915	60.8	913	60.9	920	61.1	922	61.2	925	61.4	927	61.6	929	61.7	932	61.9	934	62.0	937	62.2	939	62.3	941	62.5	943	62.6	946	1510
1511	60.4	912	60.6	915	60.7	917	60.9	920	61.0	922	61.2	924	61.3	927	61.5	929	61.6	931	61.8	934	62.0	936	62.1	938	62.3	941	62.4	943	62.6	945	62.7	948	1511
1512	60.5	914	60.7	917	60.8	919	61.0	922	61.1	924	61.3	926	61.4	929	61.6	931	61.7	933	61.9	936	62.0	938	62.2	940	62.4	943	62.5	945	62.7	947	62.8	950	1512
1513	60.6	916	60.7	919	60.9	921	61.1	924	61.2	926	61.4	928	61.5	931	61.7	933	61.8	935	62.0	938	62.1	940	62.3	942	62.4	945	62.6	947	62.8	949	62.9	952	1513
1514	60.7	918	60.8	921	61.0	923	61.1	926	61.3	928	61.5	930	61.6	933	61.8	935	61.9	937	62.0	940	62.2	942	62.4	944	62.5	947	62.7	949	62.8	951	63.0	954	1514
1515	60.8	920	60.9	923	61.1	925	61.2	928	61.4	930	61.5	932	61.7	935	61.9	937	62.0	939	62.2	942	62.3	944	62.5	946	62.6	949	62.8	951	62.9	953	63.1	956	1515
1516	60.8	922	61.0	925	61.2	927	61.3	930	61.5	932	61.6	934	61.8	937	61.9	939	62.1	941	62.3	944	62.4	946	62.6	948	62.7	951	62.9	953	63.0	956	63.2	958	1516
1517	60.9	924	61.1	927	61.3	929	61.4	932	61.6	934	61.7	936	61.9	939	62.0	941	62.2	943	62.3	946	62.5	948	62.7	950	62.8	953	63.0	955	63.1	958	63.3	960	1517
1518	61.0	926	61.2	929	61.3	931	61.5	934	61.7	936	61.8	938	62.0	941	62.1	943	62.3	945	62.4	948	62.6	950	62.7	952	62.9	955	63.1	957	63.2	960	63.4	962	1518
1519	61.1	928	61.3	931	61.4	933	61.6	936	61.7	938	61.9	940	62.1	943	62.2	945	62.4	947	62.5	950	62.7	952	62.8	955	63.0	957	63.2	959	63.3	962	63.5	964	1519
1520	61.2	930	61.4	933	61.5	935	61.7	938	61.8	940	62.0	942	62.2	945	62.3	947	62.5	949	62.6	952	62.8	954	62.9	957	63.1	959	63.2	961	63.4	964	63.5	966	1520
1521	61.3	932	61.5	935	61.6	937	61.8	940	61.9	942	62.1	944	62.2	947	62.4	949	62.6	951	62.7	954	62.9	956	63.0	959	63.2	961	63.3	963	63.5	966	63.6	968	1521
1522	61.4	934	61.6	937	61.7	939	61.9	942	62.0	944	62.2	946	62.3	949	62.5	951	62.6	954	62.8	956	63.0	958	63.1	961	63.3	963	63.4	965	63.6	968	63.7	970	1522
1523	61.5	936	61.6	939	61.8	941	62.0	944	62.1	946	62.3	948	62.4	951	62.6	953	62.7	956	62.9	958	63.0	960	63.2	963	63.3	965	63.5	967	63.7	970	63.8	972	1523
1524	61.6	938	61.7	941	61.9	943	62.0	946	62.2	948	62.4	950	62.5	953	62.7	955	62.8	958	63.0	960	63.1	962	63.3	965	63.5	967	63.6	969	63.8	972	63.9	974	1524
1525	61.7	940	61.8	943	62.0	945	62.1	948	62.3	950	62.5	952	62.6	955	62.8	957	62.9	960	63.1	962	63.2	964	63.4	967	63.5	969	63.7	971	63.8	974	64.0	976	1525
1526	61.8	942	61.9	945	62.1	947	62.2	950	62.4	952	62.5	954	62.7	957	62.9	959	63.0	962	63.2	964	63.3	966	63.5	969	63.6	971	63.8	973	63.9	976	64.1	978	1526
1527	61.8	944	62.0	947	62.2	949	62.3	952	62.5	954	62.6	957	62.8	959	62.9	961	63.1	964	63.3	966	63.4	968	63.6	971	63.7	973	63.9	975	64.0	978	64.2	980	1527
1528	61.9	946	62.1	949	62.3	951	62.4	954	62.6	956	62.7	959	62.9	961	63.0	963	63.2	966	63.3	968	63.5	970	63.6	973	63.8	975	64.0	977	64.1	980	64.3	982	1528
1529	62.0	948	62.2	951	62.3	953	62.5	956	62.7	958	62.8	961	63.0	963	63.1	965	63.3	968	63.4	970	63.6	972	63.7	975	63.9	977	64.1	979	64.2	982	64.4	984	1529
1530	62.1	950	62.3	953	62.4	955	62.6	958	62.8	960	62.9	963	63.1	965	63.2	967	63.4	970	63.5	972	63.7	974	63.8	977	64.0	979	64.1	981	64.3	984	64.5	986	1530
1531	62.2	952	62.4	955	62.5	957	62.7	960	62.8	962	63.0	965	63.2	967	63.3	969	63.5	972	63.6	974	63.8	976	63.9	979	64.1	981	64.2	983	64.4	986	64.5	988	1531
1532	62.3	954	62.5	957	62.6	959	62.8	962	62.9	964	63.1	967	63.2	969	63.4	971	63.6	974	63.7	976	63.9	978	64.0	981	64.2	983	64.3	985	64.5	988	64.6	990	1532
1533	62.4	956	62.5	959	62.7	961	62.9	964	63.0	966	63.2	969	63.3	971	63.5	973	63.6	976	63.8	978	64.0	980	64.1	983	64.2	985	64.4	987	64.6	990	64.7	992	1533
1534	62.5	958	62.6	961	62.8	963	63.0	966	63.1	968	63.3	971	63.4	973	63.6	975	63.7	978	63.9	980	64.0	982	64.2	985	64.4	987	64.5	989	64.7	992	64.8	994	1534
1535	62.6	960	62.7	963	62.9	965	63.0	968	63.2	970	63.4	973	63.5	975	63.7	977	63.8	980	64.0	982	64.1	984	64.3	987	64.4	989	64.6	991	64.7	994	64.9	996	1535
1536	62.7	962	62.8	965	63.0	967	63.1	970	63.3	972	63.5	975	63.6	977	63.8	979	63.9	982	64.1	984	64.2	986	64.4	989	64.5	991	64.7	993	64.8	996	65.0	998	1536

Table 1 (*Continued*)

D_t	10°C g	10°C G	12°C g	12°C G	14°C g	14°C G	16°C g	16°C G	18°C g	18°C G	20°C g	20°C G	22°C g	22°C G	24°C g	24°C G	26°C g	26°C G	28°C g	28°C G	30°C g	30°C G	32°C g	32°C G	34°C g	34°C G	36°C g	36°C G	38°C g	38°C G	40°C g	40°C G	D_t
1537	62·7	964	62·9	967	63·1	969	63·2	972	63·4	974	63·5	977	63·7	979	63·9	981	64·0	984	64·2	986	64·3	988	64·5	991	64·6	993	64·8	996	64·9	998	65·1	1000	1537
1538	62·8	966	63·0	969	63·2	971	63·3	974	63·5	976	63·6	979	63·8	981	63·9	983	64·1	986	64·3	988	64·4	990	64·6	993	64·7	995	64·9	998	65·0	1000	65·2	1002	1538
1539	62·9	968	63·1	971	63·2	973	63·4	976	63·6	978	63·7	981	63·9	983	64·0	985	64·2	988	64·3	990	64·5	993	64·6	995	64·8	997	65·0	1000	65·1	1002	65·3	1004	1539
1540	63·0	971	63·2	973	63·3	975	63·5	978	63·7	980	63·8	983	64·0	985	64·1	987	64·3	990	64·4	992	64·6	995	64·7	997	64·9	999	65·0	1002	65·2	1004	65·3	1006	1540
1541	63·1	973	63·3	975	63·4	977	63·6	980	63·7	982	63·9	985	64·1	987	64·2	989	64·4	992	64·5	994	64·7	997	64·8	999	65·0	1001	65·1	1004	65·3	1006	65·4	1008	1541
1542	63·2	975	63·4	977	63·5	979	63·7	982	63·8	984	64·0	987	64·1	989	64·3	991	64·4	994	64·6	996	64·8	999	64·9	1001	65·1	1003	65·2	1006	65·4	1008	65·5	1010	1542
1543	63·3	976	63·4	979	63·6	982	63·8	984	63·9	986	64·1	989	64·2	991	64·3	993	64·5	996	64·7	998	64·9	1000	65·0	1003	65·2	1005	65·3	1008	65·5	1010	65·6	1013	1543
1544	63·4	978	63·5	981	63·7	984	63·8	986	64·0	988	64·2	991	64·3	993	64·5	995	64·6	998	64·8	1000	64·9	1003	65·1	1005	65·3	1007	65·4	1010	65·6	1012	65·7	1015	1544
1545	63·5	980	63·6	983	63·8	986	63·9	988	64·1	990	64·3	993	64·4	995	64·6	997	64·7	1000	64·9	1002	65·0	1005	65·2	1007	65·3	1010	65·5	1012	65·6	1014	65·8	1017	1545
1546	63·6	982	63·7	985	63·9	988	64·0	990	64·2	992	64·3	995	64·5	997	64·6	999	64·8	1002	65·0	1004	65·1	1007	65·3	1009	65·4	1012	65·6	1014	65·7	1016	65·9	1019	1546
1547	63·6	985	63·8	987	64·0	989	64·1	992	64·3	994	64·4	997	64·6	999	64·7	1002	64·9	1004	65·1	1006	65·2	1009	65·4	1011	65·5	1014	65·7	1016	65·8	1018	66·0	1021	1547
1548	63·7	987	63·9	989	64·1	991	64·2	994	64·4	996	64·5	999	64·7	1001	64·8	1004	65·0	1006	65·1	1008	65·3	1011	65·5	1014	65·6	1016	65·8	1018	65·9	1020	66·1	1023	1548
1549	63·8	989	64·0	991	64·1	994	64·3	996	64·5	998	64·6	1001	64·8	1003	64·9	1006	65·1	1008	65·2	1010	65·4	1013	65·5	1015	65·7	1018	65·8	1020	66·0	1022	66·2	1025	1549
1550	63·9	991	64·1	993	64·2	996	64·4	998	64·5	1001	64·7	1003	64·9	1005	65·0	1008	65·2	1010	65·3	1012	65·5	1015	65·6	1017	65·8	1020	65·9	1022	66·1	1024	66·2	1027	1550
1551	64·0	993	64·2	995	64·3	998	64·5	1000	64·6	1003	64·8	1005	64·9	1007	65·1	1010	65·3	1012	65·4	1015	65·6	1017	65·7	1019	65·9	1022	66·0	1024	66·2	1026	66·3	1029	1551
1552	64·1	995	64·2	997	64·4	1000	64·6	1002	64·7	1005	64·9	1007	65·0	1009	65·2	1012	65·3	1014	65·5	1017	65·7	1019	65·8	1021	66·0	1024	66·1	1026	66·3	1029	66·4	1031	1552
1553	64·2	997	64·3	999	64·5	1002	64·7	1004	64·8	1006	65·0	1009	65·1	1011	65·3	1014	65·4	1016	65·6	1019	65·8	1021	65·9	1023	66·1	1026	66·2	1028	66·4	1031	66·5	1033	1553
1554	64·3	999	64·4	1001	64·6	1004	64·7	1006	64·9	1009	65·1	1011	65·2	1013	65·4	1016	65·5	1018	65·7	1021	65·8	1023	66·0	1025	66·2	1028	66·3	1030	66·4	1033	66·6	1035	1554
1555	64·4	1001	64·5	1003	64·7	1006	64·8	1008	65·0	1011	65·2	1013	65·3	1015	65·5	1018	65·6	1020	65·8	1023	65·9	1025	66·1	1028	66·3	1030	66·4	1032	66·5	1035	66·7	1037	1555
1556	64·4	1003	64·6	1005	64·8	1008	64·9	1010	65·1	1013	65·2	1015	65·4	1017	65·5	1020	65·7	1022	65·9	1025	66·0	1027	66·2	1030	66·4	1032	66·5	1034	66·7	1036	66·8	1039	1556
1557	64·5	1005	64·7	1007	64·8	1010	65·0	1012	65·2	1015	65·3	1017	65·5	1020	65·6	1022	65·8	1024	65·9	1027	66·1	1029	66·3	1032	66·5	1034	66·6	1036	66·7	1039	66·9	1041	1557
1558	64·6	1007	64·8	1009	64·9	1012	65·1	1014	65·3	1017	65·4	1019	65·6	1022	65·7	1024	65·9	1026	66·0	1029	66·2	1031	66·3	1034	66·6	1036	66·7	1039	66·8	1041	67·0	1043	1558
1559	64·7	1009	64·9	1011	65·0	1014	65·2	1016	65·3	1019	65·5	1021	65·7	1023	65·8	1026	66·0	1028	66·1	1031	66·3	1033	66·4	1036	66·6	1038	66·7	1041	66·9	1043	67·1	1045	1559
1560	64·8	1011	65·0	1013	65·1	1016	65·3	1018	65·4	1021	65·6	1023	65·7	1026	65·9	1028	66·1	1031	66·2	1033	66·4	1035	66·5	1038	66·7	1040	66·8	1043	67·0	1045	67·1	1047	1560
1561	64·9	1013	65·0	1015	65·2	1018	65·4	1020	65·5	1023	65·7	1025	65·8	1028	66·0	1030	66·1	1032	66·3	1035	66·5	1037	66·6	1040	66·8	1042	66·9	1045	67·1	1047	67·2	1049	1561
1562	65·0	1015	65·1	1017	65·3	1020	65·5	1022	65·6	1025	65·8	1027	65·9	1030	66·1	1032	66·2	1035	66·4	1037	66·5	1040	66·7	1042	66·9	1045	67·0	1047	67·2	1049	67·3	1051	1562
1563	65·1	1017	65·2	1019	65·4	1022	65·5	1024	65·7	1027	65·9	1029	66·0	1032	66·2	1034	66·3	1037	66·5	1039	66·6	1042	66·8	1044	67·0	1046	67·1	1050	67·3	1051	67·4	1054	1563
1564	65·2	1019	65·3	1021	65·5	1024	65·6	1026	65·8	1029	65·9	1031	66·1	1034	66·3	1036	66·4	1039	66·6	1041	66·7	1044	66·9	1046	67·0	1049	67·2	1051	67·3	1053	67·5	1056	1564
1565	65·2	1021	65·4	1024	65·6	1026	65·7	1029	65·9	1031	66·0	1033	66·2	1036	66·3	1038	66·5	1041	66·6	1043	66·8	1046	67·0	1048	67·1	1051	67·3	1053	67·4	1055	67·6	1058	1565
1566	65·3	1023	65·5	1026	65·6	1028	65·8	1030	66·0	1033	66·1	1035	66·3	1038	66·4	1040	66·6	1043	66·7	1045	66·9	1048	67·1	1050	67·2	1053	67·4	1055	67·5	1058	67·7	1060	1566
1567	65·4	1025	65·6	1027	65·7	1030	65·9	1032	66·1	1035	66·2	1038	66·4	1040	66·5	1042	66·7	1045	66·8	1047	67·0	1050	67·1	1052	67·3	1055	67·5	1057	67·6	1059	67·8	1062	1567
1568	65·5	1027	65·7	1030	65·8	1032	66·0	1035	66·1	1037	66·3	1040	66·4	1042	66·6	1044	66·8	1047	66·9	1049	67·1	1052	67·2	1054	67·4	1057	67·5	1059	67·7	1062	67·9	1064	1568
1569	65·6	1029	65·7	1032	65·9	1034	66·1	1037	66·2	1039	66·4	1042	66·5	1044	66·7	1047	66·8	1049	67·0	1051	67·2	1054	67·3	1056	67·5	1059	67·6	1061	67·8	1064	67·9	1066	1569
1570	65·7	1031	65·8	1034	66·0	1036	66·2	1039	66·3	1041	66·5	1044	66·6	1046	66·8	1049	66·9	1051	67·1	1053	67·3	1056	67·4	1058	67·6	1061	67·7	1063	67·9	1066	68·0	1068	1570
1571	65·8	1033	65·9	1036	66·1	1038	66·2	1041	66·4	1043	66·6	1046	66·7	1048	66·9	1051	67·0	1053	67·2	1055	67·3	1058	67·5	1060	67·7	1063	67·8	1065	68·0	1068	68·1	1070	1571
1572	65·9	1035	66·0	1038	66·2	1040	66·3	1043	66·5	1045	66·6	1048	66·8	1050	67·0	1052	67·1	1055	67·3	1057	67·4	1059	67·6	1063	67·7	1065	67·9	1067	68·1	1069	68·2	1071	1572

Table 1 *(Continued)*

IS 4048 : 1989

18

D_t	10 °C g	10 °C G	12 °C g	12 °C G	14 °C g	14 °C G	16 °C g	16 °C G	18 °C g	18 °C G	20 °C g	20 °C G	22 °C g	22 °C G	24 °C g	24 °C G	26 °C g	26 °C G	28 °C g	28 °C G	30 °C g	30 °C G	32 °C g	32 °C G	34 °C g	34 °C G	36 °C g	36 °C G	38 °C g	38 °C G	40 °C g	40 °C G	D_t
1573	65.9	1037	66.1	1040	66.3	1042	66.4	1045	66.6	1047	66.7	1050	66.9	1052	67.1	1055	67.2	1057	67.4	1060	67.5	1062	67.7	1065	67.8	1067	68.0	1069	68.1	1072	68.3	1074	1573
1574	66.0	1039	66.2	1042	66.3	1044	66.5	1047	66.7	1049	66.8	1052	67.0	1054	67.1	1057	67.3	1059	67.4	1062	67.6	1064	67.8	1067	67.9	1069	68.1	1072	68.2	1074	68.4	1076	1574
1575	66.1	1041	66.3	1044	66.4	1046	66.6	1049	66.8	1051	66.9	1054	67.1	1056	67.2	1059	67.4	1061	67.5	1064	67.7	1066	67.9	1069	68.0	1071	68.2	1074	68.3	1076	68.5	1078	1575
1576	66.2	1043	66.4	1046	66.5	1049	66.7	1051	66.8	1053	67.0	1056	67.2	1058	67.3	1061	67.5	1063	67.6	1066	67.8	1068	67.9	1071	68.1	1073	68.2	1076	68.4	1078	68.6	1080	1576
1577	66.3	1046	66.5	1048	66.6	1050	66.8	1053	66.9	1055	67.1	1058	67.2	1061	67.4	1063	67.6	1065	67.7	1068	67.9	1070	68.0	1073	68.2	1075	68.3	1078	68.5	1080	68.6	1082	1577
1578	66.4	1047	66.5	1050	66.7	1053	66.9	1055	67.0	1058	67.2	1060	67.3	1062	67.5	1065	67.6	1067	67.8	1070	68.0	1072	68.1	1075	68.3	1077	68.4	1080	68.6	1082	68.7	1085	1578
1579	66.5	1050	66.6	1052	66.8	1055	66.9	1057	67.1	1060	67.3	1062	67.4	1065	67.6	1067	67.7	1069	67.9	1072	68.0	1074	68.2	1077	68.4	1079	68.5	1082	68.7	1084	68.8	1087	1579
1580	66.6	1052	66.7	1054	66.9	1057	67.0	1059	67.2	1062	67.4	1064	67.5	1067	67.7	1069	67.8	1072	68.0	1074	68.1	1076	68.3	1079	68.4	1081	68.6	1084	68.7	1086	68.9	1089	1580
1581	66.6	1054	66.8	1056	67.0	1059	67.1	1061	67.3	1064	67.4	1066	67.6	1069	67.8	1071	67.9	1074	68.1	1076	68.2	1079	68.4	1081	68.5	1083	68.7	1085	68.8	1088	69.0	1091	1581
1582	66.7	1056	66.9	1058	67.1	1061	67.2	1063	67.4	1066	67.5	1068	67.7	1071	67.8	1073	68.0	1076	68.2	1078	68.3	1081	68.5	1083	68.6	1086	68.8	1088	68.9	1090	69.1	1093	1582
1583	66.8	1058	67.0	1060	67.1	1063	67.3	1065	67.5	1068	67.6	1070	67.8	1073	67.9	1075	68.1	1078	68.2	1080	68.4	1083	68.5	1085	68.7	1088	68.9	1090	69.0	1093	69.2	1095	1583
1584	66.9	1060	67.1	1062	67.2	1065	67.4	1067	67.5	1070	67.7	1072	67.9	1075	68.0	1077	68.2	1080	68.3	1082	68.5	1085	68.6	1087	68.8	1090	68.9	1092	69.1	1095	69.3	1097	1584
1585	67.0	1062	67.2	1064	67.3	1067	67.5	1069	67.6	1072	67.8	1074	67.9	1077	68.1	1079	68.3	1082	68.4	1084	68.6	1087	68.7	1089	68.9	1092	69.0	1094	69.2	1097	69.3	1099	1585
1586	67.1	1064	67.2	1066	67.4	1069	67.6	1072	67.7	1074	67.9	1077	68.0	1079	68.2	1081	68.3	1084	68.5	1086	68.7	1089	68.8	1091	69.0	1094	69.1	1096	69.3	1099	69.4	1101	1586
1587	67.2	1066	67.3	1068	67.5	1071	67.7	1074	67.8	1076	68.0	1079	68.1	1081	68.3	1084	68.4	1086	68.6	1089	68.7	1090	68.9	1093	69.1	1096	69.2	1098	69.4	1101	69.5	1103	1587
1588	67.3	1068	67.4	1071	67.5	1073	67.7	1076	67.9	1078	68.1	1081	68.2	1083	68.4	1086	68.5	1088	68.7	1091	68.8	1093	69.0	1096	69.1	1098	69.3	1100	69.5	1103	69.6	1105	1588
1589	67.3	1070	67.5	1073	67.7	1075	67.8	1078	68.0	1080	68.1	1083	68.3	1085	68.5	1088	68.6	1090	68.8	1093	68.9	1095	69.1	1098	69.2	1100	69.4	1103	69.5	1105	69.7	1107	1589
1590	67.4	1072	67.6	1075	67.7	1077	67.9	1080	68.1	1082	68.2	1085	68.4	1087	68.5	1090	68.7	1092	68.9	1095	69.0	1097	69.2	1099	69.3	1102	69.5	1105	69.6	1107	69.8	1110	1590
1591	67.5	1074	67.7	1077	67.8	1079	68.0	1082	68.2	1084	68.3	1087	68.5	1089	68.6	1092	68.8	1094	68.9	1097	69.1	1099	69.3	1102	69.4	1104	69.6	1107	69.7	1109	69.9	1112	1591
1592	67.6	1076	67.8	1079	67.9	1081	68.1	1084	68.2	1086	68.4	1089	68.6	1091	68.7	1094	68.9	1096	69.0	1099	69.2	1101	69.3	1104	69.5	1106	69.6	1109	69.8	1111	70.0	1114	1592
1593	67.7	1078	67.9	1081	68.0	1083	68.2	1086	68.3	1088	68.5	1091	68.6	1093	68.8	1096	69.0	1099	69.1	1101	69.3	1103	69.4	1106	69.6	1108	69.7	1110	69.9	1113	70.1	1116	1593
1594	67.8	1080	67.9	1083	68.1	1086	68.3	1088	68.4	1091	68.6	1093	68.7	1095	68.9	1098	69.0	1100	69.2	1103	69.4	1106	69.5	1108	69.7	1111	69.8	1113	70.0	1115	70.1	1118	1594
1595	67.9	1083	68.0	1085	68.2	1087	68.3	1090	68.5	1093	68.7	1095	68.8	1098	69.0	1100	69.1	1103	69.3	1105	69.4	1108	69.6	1110	69.8	1113	69.9	1115	70.1	1117	70.2	1120	1595
1596	68.0	1085	68.1	1087	68.3	1090	68.4	1092	68.6	1095	68.7	1097	68.9	1100	69.1	1102	69.2	1105	69.4	1107	69.5	1110	69.7	1112	69.8	1115	70.0	1117	70.1	1120	70.3	1122	1596
1597	68.0	1087	68.2	1089	68.4	1092	68.5	1094	68.7	1097	68.8	1099	69.0	1102	69.1	1104	69.3	1107	69.5	1109	69.6	1112	69.8	1114	69.9	1117	70.1	1119	70.2	1122	70.4	1124	1597
1598	68.1	1089	68.3	1091	68.4	1094	68.6	1096	68.8	1099	68.9	1101	69.1	1104	69.2	1106	69.4	1109	69.6	1111	69.7	1114	69.9	1116	70.0	1119	70.2	1121	70.3	1124	70.5	1126	1598
1599	68.2	1091	68.4	1093	68.5	1096	68.7	1098	68.9	1101	69.0	1103	69.2	1106	69.3	1108	69.5	1111	69.6	1113	69.8	1116	69.9	1119	70.1	1121	70.3	1123	70.4	1126	70.6	1128	1599
1600	68.3	1093	68.5	1095	68.6	1098	68.8	1100	68.9	1103	69.1	1106	69.3	1108	69.4	1111	69.6	1113	69.7	1116	69.9	1118	70.0	1120	70.2	1123	70.3	1126	70.5	1128	70.7	1130	1600
1601	68.4	1095	68.5	1097	68.7	1100	68.9	1103	69.0	1105	69.2	1108	69.3	1110	69.5	1113	69.7	1115	69.8	1118	70.0	1120	70.1	1123	70.3	1125	70.4	1128	70.6	1130	70.7	1133	1601
1602	68.5	1097	68.6	1099	68.8	1102	69.0	1105	69.1	1107	69.3	1110	69.4	1112	69.6	1115	69.7	1117	69.9	1120	70.1	1122	70.2	1125	70.4	1127	70.5	1130	70.7	1132	70.8	1135	1602
1603	68.6	1099	68.7	1102	68.9	1104	69.0	1107	69.2	1109	69.4	1112	69.5	1114	69.7	1117	69.8	1119	70.0	1122	70.1	1124	70.3	1127	70.5	1129	70.6	1132	70.8	1134	70.9	1137	1603
1604	68.6	1101	68.8	1104	69.0	1106	69.1	1109	69.3	1111	69.4	1114	69.6	1116	69.8	1119	69.9	1121	70.1	1124	70.2	1126	70.4	1129	70.5	1131	70.7	1134	70.9	1136	71.0	1139	1604
1605	68.7	1103	68.9	1106	69.1	1108	69.2	1111	69.4	1113	69.5	1116	69.7	1119	69.8	1121	70.0	1124	70.2	1126	70.3	1128	70.5	1131	70.6	1134	70.8	1136	70.9	1139	71.1	1141	1605
1606	68.8	1105	69.0	1108	69.1	1110	69.3	1113	69.5	1116	69.6	1118	69.8	1121	69.9	1123	70.1	1126	70.2	1128	70.4	1131	70.6	1133	70.7	1136	70.9	1138	71.0	1141	71.2	1143	1606
1607	68.9	1107	69.1	1110	69.2	1112	69.4	1115	69.5	1118	69.7	1120	69.9	1123	70.0	1125	70.2	1128	70.3	1130	70.5	1133	70.6	1135	70.8	1138	71.0	1140	71.1	1143	71.3	1145	1607
1608	69.0	1109	69.1	1112	69.3	1115	69.5	1117	69.6	1120	69.8	1122	69.9	1125	70.1	1127	70.3	1130	70.4	1132	70.6	1135	70.7	1137	70.9	1140	71.0	1142	71.2	1145	71.3	1147	1608

Table 1 (*Continued*)

t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1609	69·1	1111	69·2	1114	69·4	1117	69·6	1119	69·7	1122	69·9	1124	70·0	1127	70·2	1129	70·3	1132	70·5	1134	70·7	1137	70·8	1139	71·0	1142	71·1	1144	71·3	1147	71·4	1149	**1609**
1610	69·2	1113	69·3	1116	69·5	1119	69·6	1121	69·8	1124	70·0	1126	70·1	1129	70·3	1131	70·4	1134	70·6	1136	70·7	1139	70·9	1141	71·1	1144	71·2	1147	71·4	1149	71·5	1151	**1610**
1611	69·2	1116	69·4	1118	69·6	1121	69·7	1123	69·9	1126	70·0	1128	70·2	1131	70·4	1133	70·5	1136	70·7	1138	70·8	1141	71·0	1143	71·1	1146	71·3	1149	71·5	1151	71·6	1154	**1611**
1612	69·3	1117	69·5	1120	69·7	1123	69·8	1125	70·0	1128	70·1	1130	70·3	1133	70·4	1136	70·6	1138	70·8	1141	70·9	1143	71·1	1146	71·2	1148	71·4	1151	71·6	1153	71·7	1156	**1612**
1613	69·4	1120	69·6	1122	69·7	1125	69·9	1127	70·1	1130	70·2	1133	70·4	1135	70·5	1138	70·7	1140	70·8	1143	71·0	1145	71·2	1148	71·3	1150	71·5	1153	71·6	1155	71·8	1158	**1613**
1614	69·5	1122	69·7	1124	69·8	1127	70·0	1129	70·1	1132	70·3	1135	70·5	1137	70·6	1140	70·8	1142	70·9	1145	71·1	1147	71·2	1150	71·4	1153	71·6	1155	71·7	1158	71·9	1160	**1614**
1615	69·6	1124	69·7	1126	69·9	1129	70·1	1132	70·2	1134	70·4	1137	70·6	1139	70·7	1142	70·9	1144	71·0	1147	71·2	1149	71·3	1152	71·5	1155	71·6	1157	71·8	1160	72·0	1162	**1615**
1616	69·7	1126	69·8	1128	70·0	1131	70·2	1134	70·3	1136	70·5	1139	70·6	1142	70·8	1144	70·9	1147	71·1	1149	71·3	1152	71·4	1154	71·6	1157	71·7	1159	71·9	1162	72·0	1164	**1616**
1617	69·8	1128	69·9	1131	70·1	1133	70·2	1136	70·4	1139	70·6	1141	70·7	1144	70·9	1146	71·0	1149	71·2	1151	71·3	1154	71·5	1156	71·7	1159	71·8	1161	72·0	1164	72·1	1166	**1617**
1618	69·8	1130	70·0	1133	70·2	1135	70·3	1138	70·5	1141	70·6	1143	70·8	1146	71·0	1148	71·1	1151	71·3	1153	71·4	1156	71·6	1158	71·8	1161	71·9	1164	72·1	1166	72·2	1168	**1618**
1619	69·9	1132	70·1	1135	70·2	1137	70·4	1140	70·6	1143	70·7	1145	70·9	1148	71·1	1150	71·2	1153	71·4	1155	71·5	1158	71·7	1160	71·8	1163	72·0	1166	72·2	1168	72·3	1171	**1619**
1620	70·0	1134	70·2	1137	70·3	1140	70·5	1142	70·7	1145	70·8	1147	71·0	1150	71·1	1152	71·3	1155	71·4	1157	71·6	1160	71·8	1163	71·9	1165	72·1	1168	72·2	1170	72·4	1173	**1620**
1621	70·1	1136	70·3	1139	70·4	1142	70·6	1144	70·8	1147	70·9	1149	71·1	1152	71·2	1154	71·4	1157	71·5	1160	71·7	1162	71·9	1165	72·0	1167	72·2	1170	72·3	1172	72·5	1175	**1621**
1622	70·2	1138	70·3	1141	70·5	1144	70·7	1146	70·8	1149	71·0	1151	71·2	1154	71·3	1157	71·5	1159	71·6	1162	71·8	1164	71·9	1167	72·1	1169	72·3	1172	72·4	1174	72·6	1177	**1622**
1623	70·3	1140	70·4	1143	70·6	1146	70·8	1148	70·9	1151	71·1	1154	71·2	1156	71·4	1159	71·5	1161	71·7	1164	71·9	1166	72·0	1169	72·2	1171	72·3	1174	72·5	1177	72·6	1179	**1623**
1624	70·4	1143	70·5	1145	70·7	1147	70·8	1150	71·0	1153	71·2	1156	71·3	1158	71·5	1161	71·6	1163	71·8	1166	71·9	1168	72·1	1171	72·3	1174	72·4	1176	72·6	1179	72·7	1181	**1624**
1625	70·4	1145	70·6	1147	70·8	1150	70·9	1153	71·1	1155	71·2	1158	71·4	1160	71·6	1163	71·7	1165	71·9	1168	72·0	1170	72·2	1173	72·4	1176	72·5	1178	72·7	1181	72·8	1183	**1625**
1626	70·5	1147	70·7	1149	70·9	1152	71·0	1155	71·2	1157	71·3	1160	71·5	1162	71·7	1165	71·8	1167	72·0	1170	72·1	1173	72·3	1175	72·4	1178	72·6	1180	72·8	1183	72·9	1186	**1626**
1627	70·6	1149	70·8	1152	70·9	1154	71·1	1157	71·3	1159	71·4	1162	71·6	1165	71·7	1167	71·9	1170	72·1	1172	72·2	1175	72·4	1177	72·5	1180	72·7	1183	72·8	1185	73·0	1188	**1627**
1628	70·7	1151	70·9	1154	71·0	1156	71·2	1159	71·3	1162	71·5	1164	71·7	1167	71·8	1169	72·0	1172	72·1	1174	72·3	1177	72·4	1179	72·6	1182	72·8	1185	72·9	1187	73·1	1190	**1628**
1629	70·8	1153	71·0	1156	71·1	1158	71·3	1161	71·4	1164	71·6	1166	71·8	1169	71·9	1171	72·1	1174	72·2	1176	72·4	1179	72·5	1182	72·7	1184	72·9	1187	73·0	1189	73·2	1192	**1629**
1630	70·9	1155	71·0	1158	71·2	1161	71·4	1163	71·5	1166	71·7	1168	71·8	1171	72·0	1173	72·1	1176	72·3	1179	72·5	1181	72·6	1184	72·8	1186	72·9	1189	73·1	1192	73·3	1194	**1630**
1631	71·0	1157	71·1	1160	71·3	1163	71·4	1165	71·6	1168	71·8	1170	71·9	1173	72·1	1175	72·2	1178	72·4	1181	72·5	1183	72·7	1186	72·9	1189	73·0	1191	73·2	1194	73·3	1196	**1631**
1632	71·0	1159	71·2	1162	71·4	1165	71·5	1167	71·7	1170	71·8	1173	72·0	1175	72·2	1178	72·3	1180	72·5	1183	72·6	1185	72·8	1188	72·9	1191	73·1	1193	73·3	1196	73·4	1198	**1632**
1633	71·1	1162	71·3	1164	71·5	1167	71·6	1170	71·8	1172	71·9	1175	72·1	1177	72·2	1180	72·4	1182	72·6	1185	72·7	1188	72·9	1190	73·0	1193	73·2	1195	73·4	1198	73·5	1200	**1633**
1634	71·2	1164	71·4	1166	71·5	1170	71·7	1172	71·9	1174	72·0	1177	72·2	1179	72·3	1182	72·5	1184	72·6	1187	72·8	1190	73·0	1192	73·1	1195	73·3	1197	73·4	1200	73·6	1202	**1634**
1635	71·3	1166	71·5	1168	71·6	1171	71·8	1174	72·0	1176	72·1	1179	72·3	1181	72·4	1184	72·6	1187	72·7	1189	72·9	1192	73·1	1194	73·2	1197	73·4	1199	73·5	1202	73·7	1205	**1635**
1636	71·4	1168	71·5	1171	71·7	1173	71·9	1176	72·0	1178	72·2	1181	72·3	1184	72·5	1186	72·7	1189	72·8	1191	73·0	1194	73·1	1197	73·3	1199	73·4	1202	73·6	1204	73·8	1207	**1636**
1637	71·5	1170	71·6	1173	71·8	1175	72·0	1178	72·1	1181	72·3	1183	72·4	1186	72·6	1188	72·7	1191	72·9	1194	73·1	1196	73·2	1199	73·4	1201	73·5	1204	73·7	1206	73·9	1209	**1637**
1638	71·6	1172	71·7	1175	71·9	1177	72·0	1180	72·2	1183	72·4	1185	72·5	1188	72·7	1190	72·8	1193	73·0	1196	73·1	1198	73·3	1201	73·5	1203	73·6	1206	73·8	1209	73·9	1211	**1638**
1639	71·6	1174	71·8	1177	72·0	1179	72·1	1182	72·3	1185	72·4	1187	72·6	1190	72·8	1193	72·9	1195	73·1	1198	73·2	1200	73·4	1203	73·5	1205	73·7	1208	73·9	1211	74·0	1213	**1639**
1640	71·7	1176	71·9	1179	72·0	1182	72·2	1184	72·4	1187	72·5	1189	72·7	1192	72·8	1195	73·0	1197	73·2	1200	73·3	1202	73·5	1205	73·6	1208	73·8	1210	73·9	1213	74·1	1215	**1640**
1641	71·8	1178	72·0	1181	72·1	1184	72·3	1186	72·4	1189	72·6	1192	72·8	1194	72·9	1197	73·1	1199	73·2	1202	73·4	1204	73·6	1207	73·7	1210	73·9	1212	74·0	1215	74·2	1218	**1641**
1642	71·9	1180	72·1	1183	72·2	1186	72·4	1188	72·5	1191	72·7	1194	72·9	1196	73·0	1199	73·2	1201	73·3	1204	73·5	1207	73·6	1209	73·8	1212	74·0	1214	74·1	1217	74·3	1220	**1642**
1643	72·0	1182	72·1	1185	72·3	1188	72·5	1191	72·6	1193	72·8	1196	72·9	1198	73·1	1201	73·3	1204	73·4	1206	73·6	1209	73·7	1211	73·9	1214	74·0	1216	74·2	1219	74·4	1222	**1643**
1644	72·1	1185	72·2	1187	72·4	1190	72·6	1193	72·7	1195	72·9	1198	73·0	1201	73·2	1203	73·3	1206	73·5	1208	73·7	1211	73·8	1214	74·0	1216	74·1	1219	74·3	1221	74·5	1224	**1644**

Table 1 (*Continued*)

t D_t	10°C g	10°C G	12°C g	12°C G	14°C g	14°C G	16°C g	16°C G	18°C g	18°C G	20°C g	20°C G	22°C g	22°C G	24°C g	24°C G	26°C g	26°C G	28°C g	28°C G	30°C g	30°C G	32°C g	32°C G	34°C g	34°C G	36°C g	36°C G	38°C g	38°C G	40°C g	40°C G	t D_t
1645	72·1	1187	72·3	1189	72·5	1192	72·6	1195	72·8	1197	72·9	1200	73·1	1203	73·3	1205	73·4	1208	73·6	1211	73·7	1213	73·9	1216	74·1	1218	74·2	1221	74·4	1224	74·5	1226	1645
1646	72·2	1189	72·4	1192	72·6	1194	72·7	1197	72·9	1200	73·0	1202	73·2	1205	73·4	1208	73·5	1210	73·7	1213	73·8	1215	74·0	1218	74·1	1221	74·3	1223	74·5	1226	74·6	1228	1646
1647	72·3	1191	72·5	1194	72·6	1196	72·8	1199	73·0	1202	73·1	1204	73·3	1207	73·4	1210	73·6	1212	73·8	1215	73·9	1217	74·1	1220	74·2	1223	74·4	1225	74·6	1228	74·7	1230	1647
1648	72·4	1193	72·6	1196	72·7	1199	72·9	1201	73·0	1204	73·2	1206	73·4	1209	73·5	1212	73·7	1214	73·8	1217	74·0	1220	74·2	1222	74·3	1225	74·5	1227	74·6	1230	74·8	1233	1648
1649	72·5	1195	72·7	1198	72·8	1201	73·0	1203	73·1	1206	73·3	1209	73·4	1211	73·6	1214	73·8	1216	73·9	1219	74·1	1222	74·2	1224	74·4	1227	74·6	1229	74·7	1232	74·9	1235	1649
1650	72·6	1197	72·7	1200	72·9	1203	73·1	1205	73·2	1208	73·4	1211	73·5	1213	73·7	1216	73·9	1219	74·0	1221	74·2	1224	74·3	1226	74·5	1229	74·7	1232	74·8	1234	75·0	1237	1650
1651	72·7	1199	72·8	1202	73·0	1205	73·1	1208	73·3	1210	73·5	1213	73·6	1215	73·8	1218	73·9	1221	74·1	1223	74·3	1226	74·4	1229	74·6	1231	74·7	1234	74·9	1237	75·1	1239	1651
1652	72·7	1202	72·9	1204	73·1	1207	73·2	1210	73·4	1212	73·5	1215	73·7	1218	73·9	1220	74·0	1223	74·2	1226	74·3	1228	74·5	1231	74·7	1233	74·8	1236	75·0	1239	75·1	1241	1652
1653	72·8	1204	73·0	1207	73·1	1209	73·3	1212	73·5	1214	73·6	1217	73·8	1220	74·0	1223	74·1	1225	74·3	1228	74·4	1230	74·6	1233	74·7	1236	74·9	1238	75·1	1241	75·2	1244	1653
1654	72·9	1206	73·1	1209	73·2	1211	73·4	1214	73·6	1217	73·7	1219	73·9	1222	74·0	1225	74·2	1227	74·4	1230	74·5	1232	74·7	1235	74·8	1238	75·0	1241	75·2	1243	75·3	1246	1654
1655	73·0	1208	73·2	1211	73·3	1213	73·5	1216	73·6	1219	73·8	1221	74·0	1224	74·1	1227	74·3	1229	74·4	1232	74·6	1235	74·8	1237	74·9	1240	75·1	1243	75·2	1245	75·4	1248	1655
1656	73·1	1210	73·2	1213	73·4	1216	73·6	1218	73·7	1221	73·9	1223	74·1	1226	74·2	1229	74·4	1232	74·5	1234	74·7	1237	74·8	1239	75·0	1242	75·2	1245	75·3	1247	75·5	1250	1656
1657	73·2	1212	73·3	1215	73·5	1218	73·6	1220	73·8	1223	74·0	1226	74·1	1228	74·3	1231	74·5	1234	74·6	1236	74·8	1239	74·9	1242	75·1	1244	75·3	1247	75·4	1250	75·6	1252	1657
1658	73·2	1214	73·4	1217	73·6	1220	73·7	1222	73·9	1225	74·1	1228	74·2	1231	74·4	1233	74·5	1236	74·7	1239	74·9	1241	75·0	1244	75·2	1246	75·3	1249	75·5	1252	75·7	1255	1658
1659	73·3	1217	73·5	1219	73·7	1222	73·8	1225	74·0	1227	74·1	1230	74·3	1233	74·5	1235	74·6	1238	74·8	1241	74·9	1243	75·1	1246	75·3	1249	75·4	1252	75·6	1254	75·8	1257	1659
1660	73·4	1219	73·6	1221	73·7	1224	73·9	1227	74·1	1229	74·2	1232	74·4	1235	74·6	1238	74·7	1240	74·9	1243	75·0	1245	75·2	1248	75·4	1251	75·5	1254	75·7	1256	75·8	1259	1660
1661	73·5	1221	73·7	1223	73·8	1226	74·0	1229	74·1	1231	74·3	1234	74·5	1237	74·6	1240	74·8	1242	75·0	1245	75·1	1248	75·3	1250	75·4	1253	75·6	1256	75·8	1259	75·9	1261	1661
1662	73·6	1223	73·7	1226	73·9	1228	74·1	1231	74·2	1234	74·4	1236	74·6	1239	74·7	1242	74·9	1245	75·0	1247	75·2	1250	75·4	1252	75·5	1255	75·7	1258	75·9	1261	76·0	1263	1662
1663	73·7	1225	73·8	1228	74·0	1230	74·2	1233	74·3	1236	74·5	1238	74·6	1241	74·8	1244	75·0	1247	75·1	1249	75·3	1252	75·5	1255	75·6	1258	75·8	1260	76·0	1263	76·1	1265	1663
1664	73·7	1227	73·9	1230	74·1	1233	74·2	1235	74·4	1238	74·6	1241	74·7	1244	74·9	1246	75·1	1249	75·2	1251	75·4	1254	75·5	1257	75·7	1260	75·9	1262	76·0	1265	76·2	1268	1664
1665	73·8	1229	74·0	1232	74·2	1235	74·3	1237	74·5	1240	74·6	1243	74·8	1246	75·0	1248	75·1	1251	75·3	1254	75·5	1256	75·6	1259	75·8	1262	76·0	1265	76·1	1267	76·3	1270	1665
1666	73·9	1232	74·1	1234	74·2	1237	74·4	1240	74·6	1242	74·7	1245	74·9	1248	75·1	1250	75·2	1253	75·4	1256	75·5	1258	75·7	1261	75·9	1264	76·0	1267	76·2	1269	76·4	1272	1666
1667	74·0	1234	74·2	1236	74·3	1239	74·5	1242	74·7	1244	74·8	1247	75·0	1250	75·1	1253	75·3	1255	75·5	1258	75·6	1261	75·8	1264	76·0	1266	76·1	1269	76·3	1272	76·4	1274	1667
1668	74·1	1236	74·2	1238	74·4	1241	74·6	1244	74·7	1247	74·9	1249	75·1	1252	75·2	1255	75·4	1258	75·6	1260	75·7	1263	75·9	1266	76·1	1268	76·2	1271	76·4	1274	76·5	1276	1668
1669	74·2	1238	74·3	1241	74·5	1243	74·7	1246	74·8	1249	75·0	1251	75·2	1254	75·3	1257	75·5	1260	75·6	1262	75·8	1265	76·0	1268	76·1	1270	76·3	1273	76·5	1276	76·6	1279	1669
1670	74·2	1240	74·4	1243	74·6	1245	74·7	1248	74·9	1251	75·1	1254	75·2	1257	75·4	1259	75·6	1262	75·7	1265	75·9	1267	76·1	1270	76·2	1273	76·4	1276	76·5	1278	76·7	1281	1670
1671	74·3	1242	74·5	1245	74·7	1248	74·8	1250	75·0	1253	75·2	1256	75·3	1259	75·5	1261	75·7	1264	75·8	1267	76·0	1269	76·1	1272	76·3	1275	76·5	1278	76·6	1280	76·8	1283	1671
1672	74·4	1244	74·6	1247	74·7	1250	74·9	1253	75·1	1255	75·2	1258	75·4	1261	75·6	1264	75·7	1266	75·9	1269	76·1	1272	76·2	1275	76·4	1277	76·6	1280	76·7	1283	76·9	1285	1672
1673	74·5	1246	74·7	1249	74·8	1252	75·0	1255	75·2	1257	75·3	1260	75·5	1263	75·7	1266	75·8	1268	76·0	1271	76·1	1274	76·3	1277	76·5	1280	76·6	1282	76·8	1285	77·0	1288	1673
1674	74·6	1249	74·8	1251	74·9	1254	75·1	1257	75·2	1260	75·4	1262	75·6	1265	75·7	1268	75·9	1271	76·1	1273	76·2	1276	76·4	1279	76·6	1282	76·7	1284	76·9	1287	77·1	1290	1674
1675	74·7	1251	74·8	1254	75·0	1256	75·2	1259	75·3	1262	75·5	1264	75·7	1267	75·8	1270	76·0	1273	76·2	1276	76·3	1278	76·5	1281	76·7	1284	76·8	1287	77·0	1289	77·1	1292	1675
1676	74·8	1253	74·9	1256	75·1	1259	75·2	1261	75·4	1264	75·6	1267	75·7	1270	75·9	1272	76·1	1275	76·2	1278	76·4	1280	76·6	1283	76·7	1286	76·9	1289	77·1	1292	77·2	1294	1676
1677	74·8	1255	75·0	1258	75·2	1261	75·3	1263	75·5	1266	75·7	1269	75·8	1272	76·0	1275	76·2	1277	76·3	1280	76·5	1283	76·7	1286	76·8	1288	77·0	1291	77·1	1294	77·3	1297	1677
1678	74·9	1257	75·1	1260	75·3	1263	75·4	1266	75·6	1268	75·7	1271	75·9	1274	76·1	1277	76·2	1279	76·4	1282	76·6	1285	76·7	1288	76·9	1291	77·1	1293	77·2	1296	77·4	1299	1678
1679	75·0	1259	75·2	1262	75·3	1265	75·5	1268	75·7	1270	75·8	1273	76·0	1276	76·2	1279	76·3	1282	76·5	1284	76·7	1287	76·8	1290	77·0	1293	77·2	1296	77·3	1298	77·5	1301	1679
1680	75·1	1262	75·3	1264	75·4	1267	75·6	1270	75·8	1273	75·9	1275	76·1	1278	76·3	1281	76·4	1284	76·6	1287	76·7	1289	76·9	1292	77·1	1295	77·3	1298	77·4	1300	77·6	1303	1680

Table 1 (Continued)

D_t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		D_t
	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	
1681	75·2	1264	75·3	1267	75·5	1269	75·7	1272	75·8	1275	76·0	1278	76·2	1280	76·3	1283	76·5	1286	76·7	1289	76·8	1292	77·0	1294	77·2	1297	77·3	1300	77·5	1303	77·7	1306	1681
1682	75·3	1266	75·4	1269	75·6	1271	75·8	1274	75·9	1277	76·1	1280	76·3	1283	76·4	1285	76·6	1288	76·8	1291	76·9	1294	77·1	1297	77·3	1300	77·4	1302	77·6	1305	77·8	1308	1682
1683	75·3	1268	75·5	1271	75·7	1274	75·8	1277	76·0	1279	76·2	1282	76·3	1285	76·5	1288	76·7	1291	76·8	1293	77·0	1296	77·2	1299	77·3	1302	77·5	1305	77·7	1307	77·8	1310	1683
1684	75·4	1270	75·6	1273	75·8	1276	75·9	1279	76·1	1281	76·3	1284	76·4	1287	76·6	1290	76·8	1293	76·9	1296	77·1	1298	77·3	1301	77·4	1304	77·6	1307	77·8	1310	77·9	1313	1684
1685	75·5	1272	75·7	1275	75·8	1278	76·0	1281	76·2	1284	76·3	1286	76·5	1289	76·7	1292	76·8	1295	77·0	1298	77·2	1300	77·4	1303	77·5	1306	77·7	1309	77·9	1312	78·0	1315	1685
1686	75·6	1275	75·8	1277	75·9	1280	76·1	1283	76·3	1286	76·4	1289	76·6	1291	76·8	1294	76·9	1297	77·1	1300	77·3	1303	77·4	1306	77·6	1309	77·8	1311	78·0	1314	78·1	1317	1686
1687	75·7	1277	75·9	1280	76·0	1282	76·2	1285	76·4	1288	76·5	1291	76·7	1294	76·8	1296	77·0	1299	77·2	1302	77·4	1305	77·5	1308	77·7	1311	77·9	1314	78·0	1316	78·2	1319	1687
1688	75·8	1279	75·9	1282	76·1	1285	76·3	1287	76·4	1290	76·6	1293	76·8	1296	76·9	1299	77·1	1301	77·3	1304	77·4	1307	77·6	1310	77·8	1313	78·0	1316	78·1	1319	78·3	1322	1688
1689	75·8	1282	76·0	1284	76·2	1287	76·4	1290	76·5	1292	76·7	1295	76·9	1298	77·0	1301	77·2	1304	77·4	1307	77·5	1309	77·7	1312	77·9	1315	78·0	1318	78·2	1321	78·4	1324	1689
1690	75·9	1283	76·1	1286	76·3	1289	76·4	1292	76·6	1295	76·8	1297	76·9	1300	77·1	1303	77·3	1306	77·4	1309	77·6	1312	77·8	1315	78·0	1318	78·1	1320	78·3	1323	78·5	1326	1690
1691	76·0	1285	76·2	1288	76·4	1291	76·5	1294	76·7	1297	76·9	1300	77·0	1303	77·2	1305	77·4	1308	77·5	1311	77·7	1314	77·9	1317	78·0	1320	78·2	1323	78·4	1326	78·6	1328	1691
1692	76·1	1288	76·3	1290	76·4	1293	76·6	1296	76·8	1299	76·9	1302	77·1	1305	77·3	1308	77·4	1310	77·6	1313	77·8	1316	78·0	1319	78·1	1322	78·3	1325	78·5	1328	78·7	1331	1692
1693	76·2	1290	76·4	1293	76·5	1295	76·7	1298	76·9	1301	77·0	1304	77·2	1307	77·4	1310	77·5	1313	77·7	1315	77·9	1319	78·1	1321	78·2	1324	78·4	1327	78·6	1330	78·7	1333	1693
1694	76·3	1292	76·4	1295	76·6	1298	76·8	1301	76·9	1304	77·1	1306	77·3	1309	77·4	1312	77·6	1315	77·8	1318	78·0	1321	78·1	1324	78·3	1327	78·5	1330	78·7	1333	78·8	1335	1694
1695	76·4	1294	76·5	1297	76·7	1300	76·9	1303	77·0	1306	77·2	1309	77·4	1311	77·5	1314	77·7	1317	77·9	1320	78·1	1323	78·2	1326	78·4	1329	78·6	1332	78·7	1335	78·9	1338	1695
1696	76·4	1296	76·6	1299	76·8	1302	76·9	1305	77·1	1308	77·3	1311	77·5	1314	77·6	1316	77·8	1319	78·0	1322	78·1	1325	78·3	1328	78·5	1331	78·7	1334	78·8	1337	79·0	1340	1696
1697	76·5	1299	76·7	1302	76·9	1304	77·0	1307	77·2	1310	77·4	1313	77·5	1316	77·7	1319	77·9	1322	78·1	1325	78·2	1328	78·4	1330	78·6	1334	78·8	1337	78·9	1339	79·1	1342	1697
1698	76·6	1301	76·8	1304	77·0	1307	77·1	1309	77·3	1312	77·5	1315	77·6	1318	77·8	1321	78·0	1324	78·1	1327	78·3	1330	78·5	1333	78·7	1336	78·8	1339	79·0	1342	79·2	1345	1698
1699	76·7	1303	76·9	1306	77·0	1309	77·2	1312	77·4	1315	77·5	1317	77·7	1320	77·9	1323	78·1	1326	78·2	1329	78·4	1332	78·6	1335	78·8	1338	78·9	1341	79·1	1344	79·3	1347	1699
1700	76·8	1305	77·0	1308	77·1	1311	77·3	1314	77·5	1317	77·6	1320	77·8	1322	78·0	1325	78·1	1328	78·3	1331	78·5	1334	78·7	1337	78·8	1340	79·0	1343	79·2	1346	79·4	1349	1700
1701	76·9	1307	77·0	1310	77·2	1313	77·4	1316	77·5	1319	77·7	1322	77·9	1325	78·1	1328	78·2	1331	78·4	1334	78·6	1337	78·8	1340	78·9	1343	79·1	1346	79·3	1349	79·5	1352	1701
1702	76·9	1310	77·1	1313	77·3	1315	77·5	1318	77·6	1321	77·8	1324	78·0	1327	78·1	1330	78·3	1333	78·5	1336	78·7	1339	78·8	1342	79·0	1345	79·2	1348	79·4	1351	79·6	1354	1702
1703	77·0	1312	77·2	1315	77·4	1318	77·5	1321	77·7	1323	77·9	1326	78·0	1329	78·2	1332	78·4	1335	78·6	1338	78·8	1341	78·9	1344	79·1	1347	79·3	1350	79·5	1353	79·6	1356	1703
1704	77·1	1314	77·3	1317	77·5	1320	77·6	1323	77·8	1326	78·0	1329	78·1	1332	78·3	1334	78·5	1337	78·7	1341	78·8	1343	79·0	1347	79·2	1349	79·4	1352	79·6	1356	79·7	1359	1704
1705	77·2	1316	77·4	1319	77·5	1322	77·7	1325	77·9	1328	78·1	1331	78·2	1334	78·4	1337	78·6	1340	78·8	1343	78·9	1346	79·1	1349	79·3	1352	79·5	1355	79·6	1358	79·8	1361	1705
1706	77·3	1319	77·5	1321	77·6	1324	77·8	1327	78·0	1330	78·1	1333	78·3	1336	78·5	1339	78·7	1342	78·8	1345	79·0	1348	79·2	1351	79·4	1354	79·6	1357	79·7	1360	79·9	1363	1706
1707	77·4	1321	77·5	1324	77·7	1327	77·9	1330	78·1	1332	78·2	1335	78·4	1338	78·6	1341	78·8	1344	78·9	1347	79·1	1350	79·3	1353	79·5	1356	79·6	1359	79·8	1363	80·0	1366	1707
1708	77·5	1323	77·6	1326	77·8	1329	78·0	1332	78·1	1335	78·3	1338	78·5	1341	78·7	1344	78·8	1347	79·0	1350	79·2	1353	79·4	1356	79·6	1359	79·7	1362	79·9	1365	80·1	1368	1708
1709	77·5	1325	77·7	1328	77·9	1331	78·1	1334	78·2	1337	78·4	1340	78·6	1343	78·8	1346	78·9	1349	79·1	1352	79·3	1355	79·5	1358	79·6	1361	79·8	1364	80·0	1367	80·2	1371	1709
1710	77·6	1327	77·8	1330	78·0	1333	78·1	1336	78·3	1339	78·5	1342	78·7	1345	78·8	1348	79·0	1351	79·2	1354	79·4	1357	79·6	1360	79·7	1363	79·9	1366	80·1	1370	80·3	1373	1710
1711	77·7	1330	77·9	1333	78·1	1336	78·2	1339	78·4	1341	78·6	1345	78·8	1347	78·9	1350	79·1	1353	79·3	1356	79·5	1360	79·6	1363	79·8	1366	80·0	1369	80·2	1372	80·4	1375	1711
1712	77·8	1332	78·0	1335	78·1	1338	78·3	1341	78·5	1344	78·7	1347	78·8	1350	79·0	1353	79·2	1356	79·4	1359	79·6	1362	79·7	1365	79·9	1368	80·1	1371	80·3	1375	80·5	1378	1712
1713	77·9	1334	78·1	1337	78·2	1340	78·4	1343	78·6	1346	78·8	1349	78·9	1352	79·1	1355	79·3	1358	79·5	1361	79·6	1364	79·8	1367	80·0	1370	80·2	1373	80·4	1377	80·6	1380	1713
1714	78·0	1336	78·1	1339	78·3	1342	78·5	1345	78·7	1348	78·8	1351	79·0	1354	79·2	1357	79·4	1360	79·6	1363	79·7	1367	79·9	1370	80·1	1373	80·3	1376	80·5	1379	80·7	1383	1714
1715	78·1	1339	78·2	1341	78·4	1345	78·6	1348	78·8	1351	78·9	1354	79·1	1357	79·3	1360	79·5	1363	79·6	1366	79·8	1369	80·0	1372	80·2	1375	80·4	1378	80·6	1382	80·8	1385	1715
1716	78·1	1341	78·3	1344	78·5	1347	78·7	1350	78·8	1353	79·0	1356	79·2	1359	79·4	1362	79·5	1365	79·7	1368	79·9	1371	80·1	1374	80·3	1378	80·5	1381	80·7	1384	80·8	1387	1716

Table 1 (*Continued*)

t Dt	10°C g	10°C G	12°C g	12°C G	14°C g	14°C G	16°C g	16°C G	18°C g	18°C G	20°C g	20°C G	22°C g	22°C G	24°C g	24°C G	26°C g	26°C G	28°C g	28°C G	30°C g	30°C G	32°C g	32°C G	34°C g	34°C G	36°C g	36°C G	38°C g	38°C G	40°C g	40°C G	t Dt
1717	78.2	1343	78.4	1346	78.6	1349	78.8	1352	78.9	1355	79.1	1358	79.3	1361	79.5	1364	79.6	1367	79.8	1371	80.0	1374	80.2	1377	80.4	1380	80.6	1383	80.7	1386	80.9	1390	1717
1718	78.3	1345	78.5	1348	78.7	1351	78.8	1354	79.0	1358	79.2	1360	79.4	1364	79.5	1367	79.7	1370	79.9	1373	80.1	1376	80.3	1379	80.5	1382	80.6	1386	80.8	1389	81.0	1392	1718
1719	78.4	1348	78.6	1351	78.7	1354	78.9	1357	79.1	1360	79.3	1363	79.5	1366	79.6	1369	79.8	1372	80.0	1375	80.2	1378	80.4	1382	80.6	1385	80.7	1388	80.9	1391	81.1	1394	1719
1720	78.5	1350	78.7	1353	78.8	1356	79.0	1359	79.2	1362	79.4	1365	79.5	1368	79.7	1371	79.9	1374	80.1	1378	80.3	1381	80.5	1384	80.6	1387	80.8	1390	81.0	1394	81.2	1397	1720
1721	78.6	1352	78.7	1355	78.9	1358	79.1	1361	79.3	1364	79.4	1367	79.6	1371	79.8	1374	80.0	1377	80.2	1380	80.4	1383	80.6	1386	80.7	1390	80.9	1393	81.1	1396	81.3	1399	1721
1722	78.6	1354	78.8	1357	79.0	1360	79.2	1364	79.4	1367	79.5	1370	79.7	1373	79.9	1376	80.1	1379	80.3	1382	80.5	1386	80.6	1389	80.8	1392	81.0	1395	81.2	1399	81.4	1402	1722
1723	78.7	1357	78.9	1360	79.1	1363	79.3	1366	79.5	1369	79.6	1372	79.8	1375	80.0	1378	80.2	1381	80.4	1385	80.6	1388	80.7	1391	80.9	1394	81.1	1398	81.3	1401	81.5	1404	1723
1724	78.8	1359	79.0	1362	79.2	1365	79.4	1368	79.5	1371	79.7	1374	79.9	1377	80.1	1381	80.3	1384	80.5	1387	80.6	1390	80.8	1394	81.0	1397	81.2	1400	81.4	1404	81.6	1407	1724
1725	78.9	1361	79.1	1364	79.3	1367	79.5	1371	79.6	1374	79.8	1377	80.0	1380	80.2	1383	80.4	1386	80.5	1389	80.7	1393	80.9	1396	81.1	1399	81.3	1402	81.5	1406	81.7	1409	1725
1726	79.0	1363	79.2	1366	79.4	1370	79.6	1373	79.7	1376	79.9	1379	80.1	1382	80.3	1385	80.4	1389	80.6	1392	80.8	1395	81.0	1398	81.2	1402	81.4	1405	81.6	1408	81.8	1412	1726
1727	79.1	1366	79.3	1369	79.4	1372	79.6	1375	79.8	1378	80.0	1381	80.2	1385	80.4	1388	80.5	1391	80.7	1394	80.9	1397	81.1	1401	81.3	1404	81.5	1407	81.7	1411	81.9	1414	1727
1728	79.2	1368	79.3	1371	79.5	1374	79.7	1377	79.9	1381	80.1	1384	80.3	1387	80.4	1390	80.6	1393	80.8	1397	81.0	1400	81.2	1403	81.4	1407	81.6	1410	81.8	1413	82.0	1417	1728
1729	79.2	1370	79.4	1374	79.6	1377	79.8	1380	80.0	1383	80.2	1386	80.4	1389	80.5	1393	80.7	1396	80.9	1399	81.1	1402	81.3	1406	81.5	1409	81.7	1412	81.9	1416	82.1	1419	1729
1730	79.3	1372	79.5	1376	79.7	1379	79.9	1382	80.1	1385	80.3	1388	80.4	1392	80.6	1395	80.8	1398	81.0	1401	81.2	1405	81.4	1408	81.6	1411	81.8	1415	82.0	1418	82.2	1422	1730
1731	79.4	1375	79.6	1378	79.8	1381	80.0	1384	80.2	1388	80.3	1391	80.5	1394	80.7	1397	80.9	1401	81.1	1404	81.3	1407	81.5	1411	81.7	1414	81.9	1417	82.1	1421	82.3	1424	1731
1732	79.5	1377	79.7	1380	79.9	1384	80.1	1387	80.2	1390	80.4	1393	80.6	1397	80.8	1400	81.0	1403	81.2	1406	81.4	1410	81.6	1413	81.8	1416	82.0	1420	82.2	1423	82.4	1427	1732
1733	79.6	1379	79.8	1383	80.0	1386	80.2	1389	80.3	1392	80.5	1395	80.7	1399	80.9	1402	81.1	1405	81.3	1409	81.5	1412	81.7	1416	81.9	1419	82.1	1422	82.3	1426	82.5	1429	1733
1734	79.7	1382	79.9	1385	80.1	1388	80.2	1391	80.4	1395	80.6	1398	80.8	1401	81.0	1405	81.2	1408	81.4	1411	81.6	1414	81.8	1418	82.0	1421	82.2	1425	82.4	1428	82.6	1432	1734
1735	79.8	1384	80.0	1387	80.1	1391	80.3	1394	80.5	1397	80.7	1400	80.9	1404	81.1	1407	81.3	1410	81.5	1414	81.7	1417	81.9	1420	82.1	1424	82.3	1427	82.5	1431	82.7	1434	1735
1736	79.9	1386	80.1	1390	80.2	1393	80.4	1396	80.6	1399	80.8	1403	81.0	1406	81.2	1409	81.4	1413	81.6	1416	81.8	1419	82.0	1423	82.2	1426	82.4	1430	82.6	1433	82.8	1437	1736
1737	79.9	1389	80.1	1392	80.3	1395	80.5	1398	80.7	1402	80.9	1405	81.1	1408	81.3	1412	81.5	1415	81.7	1418	81.9	1422	82.1	1425	82.3	1429	82.5	1433	82.7	1436	82.9	1440	1737
1738	80.0	1391	80.2	1394	80.4	1398	80.6	1401	80.8	1404	81.0	1407	81.2	1411	81.4	1414	81.6	1418	81.8	1421	82.0	1424	82.2	1428	82.4	1431	82.6	1435	82.8	1439	83.0	1442	1738
1739	80.1	1393	80.3	1397	80.5	1400	80.7	1403	80.9	1406	81.1	1410	81.3	1413	81.5	1417	81.7	1420	81.9	1424	82.1	1427	82.3	1431	82.5	1434	82.7	1438	82.9	1441	83.1	1445	1739
1740	80.2	1396	80.4	1399	80.6	1402	80.8	1406	81.0	1409	81.2	1412	81.4	1416	81.6	1419	81.8	1423	82.0	1426	82.1	1429	82.4	1433	82.6	1437	82.8	1440	83.0	1444	83.2	1447	1740
1741	80.3	1398	80.5	1401	80.7	1405	80.9	1408	81.1	1411	81.3	1415	81.5	1418	81.6	1422	81.8	1425	82.0	1428	82.2	1432	82.4	1435	82.7	1439	82.9	1443	83.1	1446	83.3	1450	1741
1742	80.4	1400	80.6	1404	80.8	1407	81.0	1410	81.1	1414	81.3	1417	81.5	1421	81.7	1424	81.9	1427	82.1	1431	82.3	1434	82.5	1438	82.8	1442	83.0	1445	83.2	1449	83.4	1453	1742
1743	80.5	1403	80.7	1406	80.9	1409	81.1	1413	81.2	1416	81.4	1419	81.6	1423	81.8	1426	82.0	1430	82.2	1433	82.4	1437	82.6	1440	82.9	1444	83.1	1448	83.3	1452	83.5	1455	1743
1744	80.6	1405	80.8	1408	80.9	1412	81.1	1415	81.3	1418	81.5	1422	81.7	1425	81.9	1429	82.1	1432	82.3	1436	82.5	1439	82.7	1443	83.0	1447	83.2	1450	83.4	1454	83.6	1458	1744
1745	80.7	1407	80.8	1411	81.0	1414	81.2	1418	81.4	1421	81.6	1424	81.8	1428	82.0	1431	82.2	1435	82.4	1438	82.6	1442	82.8	1446	83.1	1449	83.3	1453	83.5	1457	83.7	1461	1745
1746	80.7	1410	80.9	1413	81.1	1417	81.3	1420	81.5	1423	81.7	1427	81.9	1430	82.1	1434	82.3	1437	82.5	1441	82.7	1444	82.9	1448	83.2	1452	83.4	1456	83.6	1459	83.8	1463	1746
1747	80.8	1412	81.0	1415	81.2	1419	81.4	1422	81.6	1426	81.8	1429	82.0	1433	82.2	1436	82.4	1440	82.6	1444	82.8	1447	83.0	1451	83.3	1455	83.5	1458	83.7	1462	83.9	1466	1747
1748	80.9	1414	81.1	1418	81.3	1421	81.5	1425	81.7	1428	81.9	1432	82.1	1435	82.3	1439	82.5	1442	82.7	1446	82.9	1450	83.1	1453	83.4	1457	83.6	1461	83.8	1465	84.0	1468	1748
1749	81.0	1417	81.2	1420	81.4	1424	81.6	1427	81.8	1431	82.0	1434	82.2	1438	82.4	1441	82.6	1445	82.8	1449	83.0	1452	83.2	1456	83.5	1460	83.7	1464	83.9	1467	84.1	1471	1749
1750	81.1	1419	81.3	1423	81.5	1426	81.7	1430	81.9	1433	82.1	1436	82.3	1440	82.5	1444	82.7	1447	82.9	1451	83.1	1455	83.3	1458	83.6	1462	83.8	1466	84.0	1470	84.2	1474	1750
1751	81.2	1422	81.4	1425	81.6	1428	81.8	1432	82.0	1435	82.2	1439	82.4	1443	82.6	1446	82.8	1450	83.0	1454	83.2	1457	83.4	1461	83.7	1465	83.9	1469	84.1	1473	84.3	1476	1751
1752	81.3	1424	81.5	1428	81.7	1431	81.9	1435	82.1	1438	82.3	1442	82.5	1445	82.7	1449	82.9	1453	83.1	1456	83.3	1460	83.6	1464	83.8	1468	84.0	1472	84.2	1475	84.4	1479	1752

Table 1 (*Continued*)

t	10°C		12°C		14°C		16°C		18°C		20°C		22°C		24°C		26°C		28°C		30°C		32°C		34°C		36°C		38°C		40°C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1753	81·4	1426	81·6	1430	81·8	1433	82·0	1437	82·2	1440	82·4	1444	82·6	1448	82·8	1451	83·0	1455	83·2	1459	83·4	1463	83·7	1466	83·9	1470	84·1	1474	84·3	1478	84·5	1482	1753
1754	81·5	1429	81·7	1432	81·9	1436	82·1	1440	82·3	1443	82·5	1447	82·7	1450	82·9	1454	83·1	1458	83·3	1461	83·5	1465	83·8	1469	84·0	1473	84·2	1477	84·4	1481	84·6	1485	1754
1755	81·6	1431	81·8	1435	82·0	1438	82·2	1442	82·4	1446	82·6	1449	82·8	1453	83·0	1456	83·2	1460	83·4	1464	83·6	1468	83·9	1472	84·1	1476	84·3	1479	84·5	1483	84·7	1488	1755
1756	81·6	1434	81·9	1437	82·1	1441	82·3	1444	82·5	1448	82·7	1452	82·9	1455	83·1	1459	83·3	1463	83·5	1467	83·7	1470	84·0	1474	84·2	1478	84·4	1482	84·6	1486	84·8	1490	1756
1757	81·7	1436	81·9	1440	82·1	1443	82·3	1447	82·6	1451	82·8	1454	83·0	1458	83·2	1462	83·4	1466	83·6	1469	83·8	1473	84·1	1477	84·3	1481	84·5	1485	84·7	1489	85·0	1493	1757
1758	81·8	1439	82·0	1442	82·2	1446	82·4	1449	82·7	1453	82·9	1457	83·1	1461	83·3	1464	83·5	1468	83·7	1472	83·9	1476	84·2	1480	84·4	1484	84·6	1488	84·9	1492	85·1	1496	1758
1759	81·9	1441	82·1	1445	82·3	1448	82·5	1452	82·7	1455	83·0	1459	83·2	1463	83·4	1467	83·6	1471	83·8	1475	84·1	1478	84·3	1482	84·5	1486	84·7	1490	85·0	1495	85·2	1499	1759
1760	82·0	1443	82·2	1447	82·4	1451	82·6	1454	82·8	1458	83·1	1462	83·3	1466	83·5	1469	83·7	1473	83·9	1477	84·2	1481	84·4	1485	84·6	1489	84·9	1493	85·1	1498	85·3	1502	1760
1761	82·1	1446	82·3	1450	82·5	1453	82·7	1457	82·9	1461	83·2	1464	83·4	1468	83·6	1472	83·8	1476	84·0	1480	84·3	1484	84·5	1488	84·7	1492	85·0	1496	85·2	1500	85·4	1505	1761
1762	82·2	1448	82·4	1452	82·6	1456	82·8	1459	83·0	1463	83·3	1467	83·5	1471	83·7	1475	83·9	1479	84·1	1482	84·4	1486	84·6	1490	84·8	1495	85·1	1499	85·3	1503	85·6	1508	1762
1763	82·3	1451	82·5	1455	82·7	1458	82·9	1462	83·1	1466	83·4	1470	83·6	1474	83·8	1477	84·0	1481	84·2	1485	84·5	1489	84·7	1493	84·9	1497	85·2	1502	85·4	1506	85·7	1511	1763
1764	82·4	1453	82·6	1457	82·8	1461	83·0	1464	83·2	1468	83·5	1472	83·7	1476	83·9	1480	84·1	1484	84·3	1488	84·6	1492	84·8	1496	85·1	1500	85·3	1505	85·6	1509	85·8	1514	1764
1765	82·5	1456	82·7	1459	82·9	1463	83·1	1467	83·3	1471	83·6	1475	83·8	1479	84·0	1483	84·2	1486	84·4	1490	84·7	1495	84·9	1499	85·2	1503	85·4	1508	85·7	1512	85·9	1516	1765
1766	82·6	1458	82·8	1462	83·0	1466	83·2	1470	83·4	1474	83·7	1478	83·9	1481	84·1	1485	84·3	1489	84·5	1493	84·8	1497	85·0	1502	85·3	1506	85·5	1511	85·8	1515	86·0	1519	1766
1767	82·7	1461	82·9	1464	83·1	1468	83·3	1472	83·5	1476	83·8	1480	84·0	1484	84·2	1488	84·4	1492	84·7	1496	84·9	1500	85·2	1505	85·4	1509	85·7	1514	85·9	1518	86·2	1522	1767
1768	82·8	1463	83·0	1467	83·2	1471	83·4	1475	83·6	1479	83·9	1483	84·1	1487	84·3	1491	84·5	1495	84·8	1499	85·0	1503	85·3	1508	85·5	1512	85·8	1517	86·0	1521	86·3	1525	1768
1769	82·9	1466	83·1	1470	83·3	1474	83·5	1477	83·7	1481	84·0	1485	84·2	1489	84·4	1493	84·7	1497	84·9	1502	85·1	1506	85·4	1511	85·6	1515	85·9	1519	86·1	1524	86·4	1529	1769
1770	83·0	1468	83·2	1472	83·4	1476	83·6	1480	83·8	1484	84·1	1488	84·3	1492	84·5	1496	84·8	1500	85·0	1505	85·3	1509	85·5	1514	85·8	1518	86·0	1523	86·3	1527	86·5	1532	1770
1771	83·1	1471	83·3	1475	83·5	1479	83·7	1483	83·9	1487	84·2	1491	84·4	1495	84·6	1499	84·9	1503	85·1	1507	85·4	1512	85·6	1517	85·9	1521	86·1	1526	86·4	1530	86·7	1535	1771
1772	83·2	1474	83·4	1477	83·6	1481	83·8	1485	84·0	1489	84·3	1493	84·5	1498	84·7	1502	85·0	1506	85·2	1510	85·5	1515	85·7	1519	86·0	1524	86·3	1529	86·5	1533	86·8	1538	1772
1773	83·3	1476	83·5	1480	83·7	1484	83·9	1488	84·1	1492	84·4	1496	84·6	1500	84·9	1504	85·1	1509	85·3	1513	85·6	1518	85·9	1522	86·1	1527	86·4	1532	86·7	1536	86·9	1541	1773
1774	83·4	1479	83·6	1483	83·8	1487	84·0	1491	84·3	1495	84·5	1499	84·7	1503	85·0	1507	85·2	1512	85·5	1516	85·7	1521	86·0	1525	86·3	1530	86·5	1535	86·8	1539	87·1	1544	1774
1775	83·5	1481	83·7	1485	83·9	1489	84·1	1493	84·4	1497	84·6	1501	84·8	1506	85·1	1510	85·3	1515	85·6	1519	85·8	1524	86·1	1528	86·4	1533	86·6	1538	86·9	1543	87·2	1548	1775
1776	83·6	1484	83·8	1488	84·0	1492	84·2	1496	84·5	1500	84·7	1504	85·0	1509	85·2	1513	85·4	1518	85·7	1522	86·0	1527	86·2	1531	86·5	1536	86·8	1541	87·1	1546	87·3	1551	1776
1777	83·7	1487	83·9	1491	84·1	1495	84·3	1499	84·6	1503	84·8	1507	85·1	1512	85·3	1516	85·5	1521	85·8	1525	86·1	1530	86·4	1535	86·6	1539	86·9	1544	87·2	1549	87·5	1554	1777
1778	83·8	1489	84·0	1493	84·2	1497	84·4	1501	84·7	1506	84·9	1510	85·2	1515	85·4	1519	85·7	1524	85·9	1528	86·2	1533	86·5	1538	86·7	1542	87·0	1547	87·3	1553	87·6	1557	1778
1779	83·9	1492	84·1	1496	84·3	1500	84·6	1504	84·8	1508	85·0	1513	85·3	1517	85·5	1522	85·8	1527	86·1	1531	86·3	1536	86·6	1541	86·9	1546	87·2	1551	87·5	1556	87·7	1559	1779
1780	84·0	1494	84·2	1499	84·4	1503	84·7	1507	84·9	1511	85·2	1516	85·4	1520	85·7	1525	85·9	1530	86·2	1534	86·5	1539	86·7	1544	87·0	1549	87·3	1554	87·6	1559	87·9	1564	1780
1781	84·1	1497	84·3	1501	84·5	1505	84·8	1510	85·0	1514	85·3	1519	85·5	1523	85·8	1528	86·0	1533	86·3	1537	86·6	1542	86·9	1547	87·2	1552	87·4	1557	87·7	1562	88·0	1567	1781
1782	84·2	1500	84·4	1504	84·6	1508	84·9	1513	85·1	1517	85·4	1521	85·6	1526	85·9	1531	86·2	1536	86·4	1540	86·7	1545	87·0	1550	87·3	1555	87·6	1560	87·9	1566	88·2	1571	1782
1783	84·3	1503	84·5	1507	84·8	1511	85·0	1516	85·2	1520	85·5	1524	85·8	1529	86·0	1534	86·3	1539	86·6	1543	86·8	1548	87·1	1554	87·4	1559	87·7	1564	88·0	1569	88·3	1575	1783
1784	84·4	1505	84·6	1509	84·9	1514	85·1	1518	85·4	1523	85·6	1527	85·9	1532	86·1	1537	86·4	1542	86·7	1546	87·0	1552	87·3	1557	87·6	1562	87·9	1567	88·1	1572	88·5	1578	1784
1785	84·5	1508	84·7	1512	85·0	1517	85·2	1521	85·5	1526	85·7	1530	86·0	1535	86·3	1540	86·5	1545	86·8	1550	87·1	1555	87·4	1560	87·7	1565	87·9	1569	88·3	1576	88·6	1582	1785
1786	84·6	1511	84·8	1515	85·1	1520	85·3	1524	85·6	1529	85·9	1533	86·1	1538	86·4	1543	86·7	1548	86·9	1553	87·2	1558	87·5	1563	87·8	1569	88·1	1574	88·4	1580	88·8	1586	1786
1787	84·7	1514	84·9	1518	85·2	1523	85·5	1527	85·7	1532	86·0	1536	86·2	1541	86·5	1546	86·8	1551	87·1	1556	87·4	1562	87·7	1567	88·0	1572	88·3	1578	88·6	1583	88·9	1589	1787
1788	84·8	1517	85·1	1521	85·3	1526	85·6	1530	85·8	1535	86·1	1539	86·4	1544	86·6	1549	86·9	1554	87·2	1559	87·5	1565	87·9	1570	88·1	1575	88·4	1581	88·8	1587	89·1	1593	1788

Table 1 (Continued)

t	10°C		12°C		14°C		16°C		18°C		20°C		22°C		24°C		26°C		28°C		30°C		32°C		34°C		36°C		38°C		40°C		t
D_t	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	D_t
1789	84·9	1519	85·2	1524	85·4	1528	85·7	1533	86·0	1538	86·2	1542	86·5	1547	86·8	1552	87·1	1558	87·4	1563	87·7	1568	88·0	1574	88·3	1579	88·6	1585	88·9	1591	89·3	1597	1789
1790	85·0	1522	85·3	1527	85·6	1531	85·8	1536	86·1	1541	86·3	1545	86·6	1550	86·9	1555	87·2	1561	87·5	1566	87·8	1572	88·1	1577	88·4	1583	88·7	1588	89·1	1595	89·4	1601	1790
1791	85·1	1525	85·4	1530	85·7	1534	85·9	1539	86·2	1544	86·5	1549	86·7	1554	87·0	1559	87·3	1564	87·6	1570	87·9	1575	88·2	1581	88·6	1586	88·9	1592	89·3	1598	89·6	1605	1791
1792	85·3	1528	85·5	1533	85·8	1537	86·0	1542	86·3	1547	86·6	1552	86·9	1557	87·2	1562	87·5	1568	87·8	1573	88·1	1579	88·4	1584	88·7	1590	89·1	1596	89·4	1602	89·8	1609	1792
1793	85·4	1531	85·6	1535	85·9	1540	86·2	1545	86·4	1550	86·7	1555	87·0	1560	87·3	1565	87·6	1571	87·9	1577	88·2	1582	88·5	1588	88·9	1594	89·2	1600	89·6	1606	89·9	1613	1793
1794	85·5	1534	85·8	1538	86·0	1543	86·3	1548	86·6	1553	86·9	1558	87·1	1563	87·4	1569	87·8	1574	88·1	1580	88·4	1586	88·7	1591	89·1	1598	89·4	1604	89·8	1610	90·1	1617	1794
1795	85·6	1537	85·9	1541	86·1	1546	86·4	1551	86·7	1556	87·0	1561	87·3	1567	87·6	1572	87·9	1578	88·2	1584	88·5	1589	88·9	1595	89·2	1601	89·6	1608	89·9	1614	90·3	1621	1795
1796	85·7	1540	86·0	1544	86·3	1549	86·5	1554	86·8	1559	87·1	1565	87·4	1570	87·7	1576	88·0	1581	88·4	1587	88·7	1593	89·0	1599	89·4	1605	89·8	1612	90·1	1618	90·5	1625	1796
1797	85·8	1543	86·1	1547	86·4	1552	86·7	1557	87·0	1563	87·3	1568	87·6	1573	87·9	1579	88·2	1585	88·5	1591	88·9	1597	89·2	1603	89·6	1609	89·9	1616	90·3	1623	90·7	1630	1797
1798	86·0	1546	86·2	1551	86·5	1555	86·8	1561	87·1	1566	87·4	1571	87·7	1577	88·0	1582	88·3	1588	88·7	1594	89·0	1601	89·4	1607	89·7	1613	90·1	1620	90·5	1627	90·9	1634	1798
1799	86·1	1549	86·4	1554	86·6	1559	86·9	1564	87·2	1569	87·5	1575	87·8	1580	88·2	1586	88·5	1592	88·9	1599	89·2	1604	89·6	1611	89·9	1617	90·3	1624	90·7	1631	91·1	1639	1799
1800	86·2	1552	86·5	1557	86·8	1562	87·1	1567	87·4	1573	87·7	1578	88·0	1584	88·3	1590	88·6	1596	89·0	1602	89·4	1608	89·7	1615	90·1	1621	90·5	1628	90·9	1635	91·3	1643	1800
1801	86·3	1555	86·6	1560	86·9	1565	87·2	1570	87·5	1576	87·8	1582	88·1	1587	88·5	1593	88·8	1599	89·2	1606	89·5	1612	89·9	1619	90·3	1625	90·7	1633	91·1	1640	91·5	1648	1801
1802	86·5	1558	86·8	1563	87·0	1568	87·3	1574	87·7	1580	87·9	1585	88·3	1591	88·6	1597	88·8	1603	89·3	1610	89·7	1616	90·1	1623	90·4	1630	90·7	1637	91·3	1645	91·7	1652	1802
1803	86·6	1561	86·9	1567	87·2	1572	87·5	1577	87·8	1583	88·1	1589	88·4	1595	88·8	1601	89·1	1607	89·5	1614	89·9	1620	90·2	1627	90·6	1634	91·0	1641	91·5	1649	91·9	1657	1803
1804	86·7	1564	87·0	1570	87·3	1575	87·6	1581	87·9	1586	88·3	1592	88·6	1598	89·0	1604	89·3	1611	89·7	1618	90·0	1624	90·4	1631	90·8	1638	91·3	1646	91·7	1654	92·2	1662	1804
1805	86·9	1568	87·2	1573	87·5	1578	87·8	1584	88·1	1590	88·4	1596	88·8	1602	89·1	1609	89·5	1615	89·8	1622	90·2	1629	90·6	1636	91·0	1643	91·5	1651	91·9	1659	92·4	1668	1805
1806	87·0	1571	87·3	1577	87·6	1582	87·9	1588	88·2	1593	88·6	1599	88·9	1606	89·3	1612	89·7	1619	90·0	1626	90·4	1633	90·8	1640	91·2	1647	91·7	1656	92·2	1664	92·6	1673	1806
1807	87·1	1574	87·4	1580	87·7	1585	88·1	1591	88·4	1597	88·7	1603	89·1	1610	89·5	1617	89·8	1623	90·2	1630	90·6	1637	91·0	1645	91·4	1652	91·9	1661	92·4	1669	92·9	1679	1807
1808	87·3	1578	87·6	1584	87·9	1589	88·2	1595	88·5	1601	88·9	1607	89·3	1614	89·6	1621	90·0	1627	90·4	1634	90·8	1642	91·2	1649	91·7	1657	92·1	1668	92·6	1675	93·2	1684	1808
1809	87·4	1581	87·7	1587	88·0	1592	88·4	1598	88·7	1604	89·1	1611	89·4	1618	89·8	1625	90·2	1632	90·6	1639	91·0	1646	91·4	1654	91·9	1662	92·4	1671	92·9	1680	93·4	1690	1809
1810	87·5	1584	87·9	1590	88·2	1596	88·5	1602	88·9	1608	89·2	1615	89·6	1622	90·0	1629	90·4	1636	90·8	1643	91·2	1651	91·6	1659	92·1	1667	92·6	1676	93·2	1686	93·7	1696	1810
1811	87·7	1588	88·0	1594	88·3	1599	88·7	1606	89·0	1612	89·4	1619	89·8	1626	90·2	1633	90·6	1640	91·0	1648	91·4	1655	91·9	1664	92·4	1672	92·9	1682	93·4	1692	94·0 / 99·9	1703 / 1810	1811
1812	87·8	1591	88·2	1597	88·5	1603	88·8	1610	89·2	1616	89·6	1623	89·9	1630	90·4	1637	90·8	1645	91·2	1652	91·6	1660	92·1	1668	92·6	1678	93·1	1688	93·7 / 99·9	1698 / 1810	94·4 / 99·7	1710 / 1807	1812
1813	88·0	1595	88·3	1601	88·6	1607	89·0	1614	89·4	1620	89·7	1627	90·1	1634	90·6	1642	91·0	1649	91·4	1657	91·9	1665	92·3	1674	92·7	1684	93·4	1693	94·0 / 99·9	1705 / 1812	94·7 / 99·4	1717 / 1803	1813
1814	88·1	1598	88·5	1605	88·8	1611	89·2	1618	89·5	1624	89·9	1631	90·3	1638	90·8	1646	91·2	1654	91·6	1662	92·1	1671	92·6	1679	93·1	1690	93·7	1700	94·4 / 99·2	1712 / 1809	95·1 / 99·2	1725 / 1799	1814
1815	88·3	1602	88·6	1608	89·0	1614	89·3	1622	89·7	1628	90·1	1636	90·5	1642	91·0	1651	91·4	1659	91·8	1667	92·3	1676	92·8	1685	93·4	1695	94·0 / 99·9	1706 / 1813	94·7 / 99·4	1719 / 1805	95·6 / 98·8	1735 / 1794	1815
1816	88·4	1606	88·8	1612	89·1	1619	89·5	1626	89·9	1633	90·3	1640	90·7	1647	91·2	1655	91·6	1664	92·1	1672	92·5	1681	93·1	1691	93·7	1701	94·3 / 99·7	1713 / 1810	95·1 / 99·1	1727 / 1800	96·2 / 98·3	1747 / 1785	1816

Table 1 (*Continued*)

D_t	10°C g	10°C G	12°C g	12°C G	14°C g	14°C G	16°C g	16°C G	18°C g	18°C G	20°C g	20°C G	22°C g	22°C G	24°C g	24°C G	26°C g	26°C G	28°C g	28°C G	30°C g	30°C G	32°C g	32°C G	34°C g	34°C G	36°C g	36°C G	38°C g	38°C G	40°C g	40°C G	D_t
1817	88·6	1609	89·0	1616	89·3	1623	89·7	1630	90·1	1637	90·5	1644	90·9	1652	91·4	1660	91·8	1669	92·3	1677	92·8	1687	93·4	1697	94·0 / 99·9	1708 / 1815	94·7 / 99·4	1721 / 1806	95·6 / 98·8	1737 / 1794			1817
1818	88·8	1613	89·1	1620	89·5	1627	89·9	1634	90·3	1641	90·7	1649	91·1	1657	91·6	1665	92·1	1674	92·5	1683	93·1	1693	93·7	1703	94·3 / 99·7	1715 / 1812	95·1 / 99·1	1729 / 1802	96·2 / 98·2	1749 / 1785			1818
1819	88·9	1617	89·3	1624	89·7	1631	90·1	1638	90·5	1646	90·9	1653	91·3	1661	91·8	1670	92·3	1679	92·8	1688	93·4	1699	94·0 / 99·9	1710 / 1817	94·7 / 99·4	1723 / 1808	95·6 / 98·7	1740 / 1796					1819
1820	89·1	1621	89·5	1628	89·8	1635	90·3	1643	90·7	1650	91·1	1658	91·6	1666	92·0	1675	92·5	1684	93·1	1694	93·6	1703	94·4 / 99·7	1717 / 1814	95·2 / 99·1	1732 / 1804	96·3 / 98·2	1752 / 1787					1820
1821	89·3	1625	89·6	1632	90·0	1639	90·4	1647	90·9	1655	91·3	1663	91·8	1671	92·3	1681	92·8	1690	93·4	1700	94·0 / 99·9	1712 / 1814	94·7 / 99·4	1725 / 1810	95·6 / 98·7	1742 / 1797					1821
1822	89·4	1630	89·8	1637	90·2	1644	90·7	1652	91·1	1659	91·5	1668	92·0	1677	92·5	1686	93·1	1696	93·7	1707	94·3 / 99·6	1719 / 1815	95·2 / 99·1	1734 / 1805	96·3 / 98·1	1755 / 1787					1822
1823	89·6	1634	90·0	1641	90·4	1648	90·9	1656	91·3	1664	91·8	1673	92·3	1682	92·8	1692	93·4 / 99·9	1702 / 1821	94·0 / 99·4	1714 / 1811	94·7 / 98·7	1727 / 1799	95·7	1744							1823
1824	89·8	1638	90·2	1645	90·6	1653	91·1	1661	91·5	1669	92·0	1678	92·5	1687	93·1	1698	93·7 / 99·7	1709 / 1818	94·4 / 99·1	1721 / 1807	95·2 / 98·1	1736 / 1789	96·3	1757							1824
1825	90·0	1642	90·4	1649	90·8	1657	91·3	1666	91·7	1674	92·2	1684	92·8	1693	93·4 / 99·9	1704 / 1823	94·0 / 99·4	1716 / 1814	94·8 / 98·7	1729 / 1801	95·7	1746									1825
1826	90·2	1646	90·6	1654	91·0	1662	91·5	1671	92·0	1680	92·5	1689	93·1	1699	93·7 / 99·7	1710 / 1820	94·4 / 99·1	1723 / 1809	95·2 / 98·1	1738 / 1791	96·4	1742									1826
1827	90·4	1651	90·8	1659	91·2	1667	91·7	1676	92·2	1685	92·8	1695	93·3	1705	94·0 / 99·9	1717 / 1825	94·7 / 99·4	1731 / 1816	95·7 / 98·7	1748 / 1803											1827
1828	90·6	1655	91·0	1663	91·5	1672	92·0	1681	92·5	1690	93·0	1701	93·6	1712	94·4 / 99·7	1725 / 1822	95·2 / 99·1	1740 / 1811	96·4 / 98·1	1762 / 1793											1828
1829	90·8	1660	91·2	1668	91·7	1677	92·2	1686	92·7	1696	93·3	1707	94·0 / 99·9	1719 / 1827	94·7 / 99·4	1733 / 1818	95·7 / 98·7	1750 / 1805													1829
1830	91·0	1665	91·4	1673	91·9	1682	92·4	1692	93·0	1702	93·6	1713	94·3 / 99·7	1726 / 1824	95·2 / 99·1	1742 / 1813	96·4 / 98·1	1764 / 1795													1830
1831	91·2	1669	91·6	1678	92·2	1688	92·7	1697	93·3	1708	93·9 / 99·9	1720 / 1829	94·7 / 99·4	1734 / 1820	95·7 / 98·6	1752 / 1806															1831
1832	91·4	1674	91·9	1683	92·4	1693	93·0	1703	93·6	1715	94·3 / 99·7	1728 / 1826	95·1 / 99·1	1743 / 1815	96·4 / 98·0	1765 / 1795															1832
1833	91·6	1679	92·1	1689	92·7	1699	93·3	1709	93·9 / 99·9	1722 / 1831	94·7 / 99·4	1736 / 1821	95·7 / 98·7	1753 / 1808																	1833
1834	91·9	1685	92·4	1694	92·9	1704	93·6	1716	94·3 / 99·7	1729 / 1828	95·1 / 99·1	1745 / 1817	96·4 / 98·1	1768 / 1799																	1834

Table 1 (*Concluded*)

t	10 °C		12 °C		14 °C		16 °C		18 °C		20 °C		22 °C		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C		38 °C		40 °C		t
Dt	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	g	G	Dt
1835	92·1	1690	92·6	1700	93·3	1711	93·9	1723	94·7	1737	95·6	1755																					1835
							99·9	1833	99·4	1824	98·7	1811																					
1836	92·3	1696	92·9	1706	93·6	1718	94·3	1730	95·1	1746	96·4	1770																					1836
							99·7	1830	99·1	1819	98·1	1801																					
1837	92·6	1701	93·2	1712	93·9	1725	94·6	1739	95·6	1756																							1837
					99·9	1836	99·4	1826	98·7	1813																							
1838	92·9	1707	93·5	1719	94·3	1732	95·1	1748	96·3	1770																							1838
					99·7	1832	99·1	1821	98·1	1803																							
1839	93·2	1713	93·9	1726	94·7	1741	95·6	1758																									1839
			100·0	1838	99·4	1829	98·7	1814																									
1840	93·5	1720	94·2	1733	95·1	1749	96·3	1772																									1840
			99·7	1835	99·1	1824	98·1	1804																									
1841	93·8	1727	94·6	1742	95·2	1760																											1841
	100·0	1841	99·5	1831	98·7	1817																											
1842	94·2	1735	95·0	1750	96·3	1773																											1842
	99·7	1837	99·1	1826	98·1	1807																											
1843	94·6	1743	95·6	1761																													1843
	99·5	1833	98·7	1820																													
1844	95·0	1753	96·3	1776																													1844
	99·2	1829	98·2	1810																													
1845	95·6	1763																															1845
	98·8	1823																															
1846	96·2	1776																															1846
	98·3	1814																															

ANNEX A

(*Clause* 3.5)

CORRECTIONS OF READINGS TAKEN BY HYDROMETERS

A-1 CORRECTIONS TO BE APPLIED FOR GREATER ACCURACY

A-1.1 Where greater accuracy is necessary, the following additional corrections are applied for:

a) The scale error of the hydrometer,

b) The difference between the temperature of the liquid and the standard temperature of the hydrometer, and

c) The difference between the surface tension of the liquid and that for which the hydrometer is adjusted.

A-1.1.1 *Corrections for Scale Errors*

The maximum permissible scale errors allowed on hydrometers appropriate for sulphuric acid are given in Table 2.

A-1.1.2 *Temperature Corrections*

When the hydrometer reading is taken at a temperature t other than the standard tempera-

ture t_s (27°C, 20°C or 15°C), the reading is in error due to the difference in the volume of the hydrometer between t_s and t.

A-1.1.2.1 Appropriate corrections for making allowance for this temperature effect are given in Table 3. Density hydrometers corrected in accordance with Table 3 give the density D_t of the liquid at t.

A-1.1.3 *Surface Tension Correction*

These corrections are applied on hydrometer reading taken in an overflow vessel so as to ensure that the surface of the liquid is truly clean.

A-1.1.3.1 When the highest accuracy is required, hydrometer adjusted for the 'high' surface tension value 75 mN/m should be used, for sulphuric acid solutions having densities in the range of 1 000 kg/m³ to 1 800 kg/m³, and hydrometers adjusted for the 'medium' surface tension

Table 2 Indian Standard Hydrometers for Use in Aqueous Solutions of Sulphuric Acid

(*Clauses* A-1.1.1 *and* D-1.1)

Series and Range Category	Interval Covered by Individual Hydrometers		Equivalent of One Sub-division		Scale Length (Nominal Length) Min	Number of Scale Division	Permissible Scale Error Max	Overall Length Max	Bulb Diameter	
									Min	Max
	(g/ml)	(kg/m³)	(g/ml)	(kg/m³)	(mm)		(kg/m³)	(mm)	(mm)	
L 20	0·020	20	0·000 2	0·2	105	100	± 0·2	335	36	40
L 50	0·050	50	0·000 5	0·5	125	100	± 0·5	335	23	27
M 50	0·050	50	0·001	1	70	50	± 1·0	270	20	24
M 100	0·100	100	0·002	2	85	50	± 2·0	250	18	20
S 50	0·050	50	0·002	2	50	25	± 2·0	190	18	20

NOTE — The letters *L, M* and *S* stand for 'Long', 'Medium, and 'Short' and the numbers associated with each of them indicate the difference between the two extreme graduations of the scale of each hydrometer of the particular series concerned.

Table 3 Temperature Corrections for Density Hydrometers

(*Clauses* A-1.2.1 *and* A-1.1.3.4)

Sl No.	Standard Temperature t of Hydrometer			Hydrometer Reading at Temperature t					
	27°C	20°C	15°C	1 000	1 200	1 400	1 600	1 800	2 000
	Temperature t(°C) of Liquid			Correction (Unit 0·1 kg/m³)					
i)	17	10	5	+3	+3	+4	+4	+5	+5
ii)	22	15	10	+1	+2	+2	+2	+2	+3
iii)	27	20	15	0	0	0	0	0	0
iv)	32	25	20	—1	—2	—2	—2	—2	—3
v)	37	30	25	—3	—3	—4	—4	—5	—5
vi)	42	35	30	—4	—5	—5	—6	—7	—8
vii)	—	40	35	—5	—6	—7	—8	—9	—10
viii)	—	—	40	—6	—8	—9	—10	—11	—12

NOTES

1 When the sign is positive, the correction is to be added to the hydrometer reading and when negative it is to be subtracted from it.

2 This table is based on the value $2·5 \times 10^{-5}$ per °C for the coefficient of cubical expansion of the hydrometer.

value 55 mN/m should be used for Solutions having densities above 1 800 kg/m³.

A-1.1.3.2 In the cases where no special precautions are taken for obtaining a clean acid surface, the surface tensions of aqueous solutions are usually less than the surface tension value for clean surfaces. Also since the value depends to a large extent on the degree of contamination of the surface, the effective surface tension is erratic. Hence when using ordinary hydrometer jars without overflow, it is not possible to assign a reliable value to the surface tension of the acid solutions without measuring it. Under these conditions, surface tension corrections are usually ignored. It 'may, however, be assumed that under ordinary conditions of the cleanliness, the values lie between 40 mN/m and 70 mN/m. It is, therefore, appropriate to use a hydrometer adjusted for 55 mN/m. The error then introduced by ignoring surface tension is unlikely to exceed values given in Table 4.

A-1.1.3.3 It is of interest to examine the overall effect of ignoring corrections under **A-1.1**, **A-1.1.2** and **A-1.1.3** when using hydrometers

adjusted for the 'medium' surface tension value. In Table 5, the hydrometers are assumed to be floating in sulphuric acid solutions of density between 1 000 kg/m³ and 1 850 kg/m³ at a temperature differing by ± 10°C from the standard temperature of the hydrometer.

A-1.1.3.4 Application of hydrometer corrections:

1) Example:

Hydrometer used: Density hydrometer L50 range 1 750 to 1 800 kg/m³ at 20°C adjusted for 75 mN/m, ascertained scale error + 0.5 kg/m³ (that is, maximum permissible error)
Temperature of acid solution   27°C
Uncorrected hydrometer reading 1 772 kg/m³ using overflow technique
Corrections:
For scale error   − 0.5 kg/m³
For temperature (from Table 3) − 0.3 kg/m³
For surface tension (from   − 0.2 kg/m³
Table 6)   ————————
Then density of acid solution   1 771.0 kg/m³
at 27°C

Table 4   Maximum Errors Introduced by Ignoring Surface Tension When Reading Density Hydrometers, Adjusted for 55 mN/m, in Aqueous Solutions of Sulphuric Acid in an Ordinary Hydrometer Jar Maximum Error (Unit kg/m³)

(Clause A-1.1.3.2)

Sl No.	Density of the Acid Solution kg/m³	Density Hydrometers Adjusted for 55 mN/m				
		L 20	*L* 50	*M* 50	*M* 100	*S* 50
i)	1 000 to 1 850	± 0.2	±0.3	±0.5	±0.9	±0.8

NOTE — The letters *L*, *M* and *S* stand for 'Long', 'Medium' and 'Short' and the numbers associated with each of them indicate the difference between the two extreme graduations of the scale of each hydrometer of the particular series concerned.

Table 5   Maximum Errors Due to Omission of All Corrections to Density Hydrometers Adjusted for 55 mN/m

(Clause A-1.1.3.3)

Series and Range Category	*L* 20	*L* 50	*M* 50	*M* 100	*S* 50
Value of one sub-division (kg/m³)	0.2	0.5	1.0	2.0	2.0
	(Unit kg/m¹)				
i) Maximum permissible scale corrections	±0.2	±0.5	±1.0	±2.0	±2.0
ii) Maximum temperature correction for ± 10°C	±0.5	±0.5	±0.5	±0.5	±0.5
iii) Maximum estimated surface tension correction	±0.2	±0.3	±0.5	±0.9	±0.8
Maximum values of total corrections	±0.9	±1.3	±2.0	±3.4	±3.3

Error in grams is determined strength of solution of density 1 400 kg/m³ at 30°C   51.3 g sulphuric acid/ 100 g of solution or 718 g sulphuric acid/1 litre of solution) corresponding to total corrections above.

	(Unit g)				
Sulphuric acid in 100 g of solution	±0.1	±0.1	±0.2	±0.3	±0.3
Sulphuric acid in 1 litre of solution	±2	±3		±7	±7

NOTE — The letters *L*, *M* and *S* stand for 'Long', 'Medium' and 'Short' and the numbers associated with each of them indicate the difference between the two extreme graduations of the scale of each hydrometer of the particular series concerned.

Table 6 Surface Tension Corrections for Indian Standard Density Hydrometers When Used in Aqueous Solutions of Sulphuric Acid Having Truly Clean Surface Correction

Unit 0·1 kg/m³

(*Clause* A-1.1.3.4)

Sl No.	Density of Solution at 27°C (kg/m³)	Indian Standard Hydrometers Adjusted for the 'High' Surface Tension 75 mN/m			
		L 20	*L* 50	*M* 50	*M* 100/*S* 50
i)	1 000	0	— 1	— 1	0
ii)	1 100	0	0	0	0
iii)	1 200	0	0	0	0
iv)	1 300	0	+ 1	+ 1	0
v)	1 400	0	+ 1	+ 1	0
vi)	1 500	0	0	0	0
vii)	1 600	0	0	0	0
viii)	1 700	— 1	— 1	— 2	0
ix)	1 800	— 1	— 2	— 3	— 10
		Indian Standard Hydrometer Adjusted for the 'High' Surface Tension 55 mN/m			
		L 20	*L* 50	*M* 50	*M* 100/*S* 50
x)	1 800	+ 1	+ 2	+ 3	+ 10
xi)	1 850	0	0	+ 1	0

NOTES

1 The letters *L*, *M* and *S* stand for 'Long', 'Medium' and 'Short' and the numbers associat d with each of them indicate the difference between the two extreme graduations of the scale of each hydrometer of the particular series concerned.

2 The sign being positive, the correction is to be added to the hydrometer reading.

From Table 1 a solution of density 1 771 kg/m³ at 27°C contains 85·0 g of sulphuric acid in 100 g of solution and one litre of solution contains 1 505 g of sulphuric acid.

Had the corrections of scale error, temperature and surface tension been ignored the values would have been 85·1 g and 1 508 g, respectively.

2) Example:

Hydrometer used: Density hydrometer *L* 50 range 1 800 to 1 850 kg/m³ at 20°C adjusted for 55 mN/m, ascertained scale error + 0·5 kg/m³ (that is, maximum permissible error).

Temperature of acid solution   28°C

Uncorrected hydrometer read-   1 804·0 kg/m³
ing using overflow technique
Corrections:
For scale error   — 0·5 kg/m³
For temperature (from Table 3) — 0·4 kg/m³
For surface tension (from   + 0·2 kg/m³
Table 6)
—————————
Then density of acid solution   1 803·3 kg/m³
at 28°C

From Table 1 a solution of density 1 803 kg/m³ at 28°C contains 89·5 g of sulphuric acid in 100 g of solution and one litre of solution contains 1 614 g of sulphuric acid.

Had the corrections of scale error, temperature and surface tension been ignored the values would have been 89·7 g and 1 618 g, respectively.

ANNEX B

(*Clause* 3.6)

USE OF DENSITY-COMPOSITION TABLES

B-1 TO DETERMINE THE STRENGTH OF AN AQUEOUS SOLUTION OF SULPHURIC ACID

B-1.1 Suppose that the temperature of the solution is 28°C and the density at that temperature is 1 806 kg/m³. Then in Table 1 under the temperature 28°C and opposite D_t = 1 806 will be found g = 90·0 and G = 1 626, indicating that the solution contains 90·0 g of sulphuric acid in 100 g of solution and 1 626 g of sulphuric acid in one litre of solution at 28°C.

B-1.2 Suppose that the temperature of the solution is 16°C and the density at the temperature is 1 839 kg/m³. Then from Table 1 the solution contains either 95·6 g of sulphuric acid in 100 g of solution or 98·7 g of sulphuric acid in 100 g of solution. Which of the two is correct is settled by cautiously adding some of the solution to a little water. If this results in an increase of density, the original solution was the more concentrated of the two possible strengths and vice versa.

B-2 TO MAKE UP A SOLUTION CONTAINING 4·7 GRAMS OF SULPHURIC ACID IN 100 GRAMS OF SOLUTION

B-2.1 In Table 1 under t = 20 C the value of D_t corresponding to g = 4·7 g is 1 030 kg/m³.

29

Water should, therefore, be mixed with a more concentrated solution of sulphuric acid, in small portions with thoroughly mixing and avoidance of an undue rise in temperature, the density of the diluted acid solution being checked with a hydrometer during the dilution until the hydrometer indicates that the density is approaching 1 030 kg/m³. At this stage and before making the final adjustment, the temperature of the solution is taken. Suppose it is 28°C, then from Table 1 the value of D_t corresponding to $g = 4.7$ in the column headed 28°C is 1 027 kg/m³. The solution at 28°C should, therefore, be adjusted so that a hydrometer indicates

that its density is 1 027 kg/m³. The solution thus obtained will contain 4.7 g of sulphuric acid in 100 g of solution.

B-3 TO MAKE UP A SOLUTION CONTAINING 678 g OF SULPHURIC ACID IN 1 LITRE OF SOLUTION AT 20°C

B-3.1 Table 1, under the heading 20°C, shows that a solution containing 678 g of sulphuric acid per litre has 49.0 g of sulphuric acid per 100 g of solution. Therefore, the required solution is made up as in B-2.1 using $g = 49.0$.

ANNEX C

(*Clause* 3.7)

DETERMINATION OF DENSITY (D_t) FROM THE VALUES OF G AND g

C-1 DETERMINATION OF D_t FROM THE VALUE OF g

C-1.1 Consider a solution containing 10 g of sulphuric acid in 100 g of solution, that is, one for which $g = 10$. By looking up the value of D_t corresponding to the value $g = 10$ under any particular temperature in Table 1 the density of the solution at that temperature can be obtained. Thus, for example, the density of the solution is 1 070 kg/m³ at 10°C, and 1 066 kg/m³ at 20°C.

C-2 DETERMINATION OF D_t FROM THE VALUE OF G

C-2.1 The percentage composition g of a solution is independent of its temperature, but G, the number of grams of sulphuric acid in 1 litre of solution, varies with the temperature of the solution owing to the change in volume of the solution with change in temperature. Hence, the concentration G must always be associated with a particular temperature. For a given value of G applicable at a particular temperature, Table 1 can be used to obtain the density of the solution at the specified temperature or at any other temperature within the range of the table. The value of G for the solution at temperatures

other than the specified one can also be obtained. For example, consider a solution containing 200 g of sulphuric acid per litre at 20°C. Under 20°C in Table 1 the value of D_t corresponding to $G = 200$ is 1 123 kg/m³ and the corresponding value of g is 17.8. By tracing the value $g = 17.8$ through the Table 1, and interpolating where necessary, the density D_t at various temperatures of the solution containing 200 g of sulphuric acid in 1 litre of solution at 20°C can be obtained and also the number of grams of sulphuric acid in 1 litre of the solution at various temperatures. Examples of the values which may thus be obtained are given in Table 7.

Table 7 Values of 'G' of a Solution at Different Temperatures

t°C	Grams (g) of Sulphuric Acid in 100 g of Solution	Density (D) of Solution of kg/m² at t°C	Grams (G) of Sulphuric Acid in 1 Litre of Solution at t°C
10	17.8	1 128	200
20	17.8	1 123	200
30	17.8	1 117	198
40	17.8	1 112	198

ANNEX D

(*Clause* 3.8)

INDIAN STANDARD HYDROMETERS FOR USE IN CONJUNCTION WITH THE TABLES

D-1 RECOMMENDATIONS FOR SELECTION OF HYDROMETERS

D-1.1 Indian Standard specification for density hydrometers [IS 3104 (Part 1 and 2) : 1982] affords a wide choice of density hydrometers suitable for use in aqueous solution of sulphuric

acid. They may have scales of density at 27°C, 20°C and 15°C. The choice of the hydrometer series will depend on the accuracy required and the amount of solution available. Table 2 gives the essential features of the various series of hydrometers suitable for aqueous solutions.

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected