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**ТЕПЛОФИЗИЧЕСКИЕ СВОЙСТВА ВОДЫ И ПАРА
В ДИАПАЗОНЕ ТЕМПЕРАТУР 0...229 °С И ДАВЛЕНИЙ 0,1...5,0 МПа**

Справочное пособие для энергетических расчетов

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Теплофизические свойства воды и пара в диапазоне температур 0...229 °С и давлений 0,1...5,0 МПа: Справочное пособие для энергетических расчетов. – К.: Институт электродинамики НАН Украины, 2012. – 115 с.

Приведены таблицы значений плотности и удельной энтальпии воды и пара в диапазоне температур 0...229 °С и давлений 0,1...5,0 МПа, а также табличные зависимости для определения состояния насыщения как при заданной температуре, так и при заданном давлении. Вычисления произведены в соответствии с рекомендациями Международной ассоциации по свойствам воды и водяного пара для применения в промышленных расчетах. Приведены все уравнения и контрольные значения, которые были использованы при составлении и проверке таблиц.

Справочное пособие предназначено для работников проектных организаций и для инженерно-технического персонала, занимающегося энергетическими расчетами и метрологическим обеспечением учета тепловой энергии в системах и установках, где в качестве теплоносителя применяется вода и пар. Пособие может быть полезно также для студентов соответствующих специальностей.

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Введение

Таблицы, приведенные в справочном пособии для энергетических расчетов, предназначены для вычисления тепловой энергии в системах теплоснабжения и контроля качества работы вычислителей тепловой энергии в приборах и системах ее учета. Для составления таблиц термодинамических свойств воды использованы основные уравнения Международной системы уравнений 1997 г. для термодинамических свойств воды и водяного пара, составленные для промышленных расчетов [4], далее называемые Формуляцией IF-97.

Таблицы отличаются от уже существующих [1, 2] повышенной разрядностью приведенных данных и уменьшенным шагом сетки параметров (для упрощения построения и проверки технических аппроксимаций, облегчения интерполяционных вычислений). Разрядность данных и шаг сетки выбраны по аналогии с известными таблицами [3], которые к настоящему времени упразднены, поскольку принята новая Международная температурная шкала МТШ-90 [5]. Столь высокая разрядность данных необходима для точного вычисления тепловой энергии при малых значениях перепада температур и давлений на объектах теплоснабжения. Диапазон изменения значений температуры в таблицах ограничен значениями 0...229 °С, а давления – 0,1...5,0 МПа, то есть охватывает область жидкого состояния воды и перегретого пара. Диапазон допустимых температур для соответствующих уравнений Формуляции IF-97 составляет 0...450 °С, а диапазоны допустимых давлений – 0...100 МПа, причем, 0 °С соответствует 273,15 К.

Линия насыщения

Область жидкого состояния воды ограничена линией насыщения – кипения воды. Эта линия описывается неявным квадратным уравнением, которое может быть решено как относительно давления насыщения p_s , так и относительно температуры насыщения T_s . Это уравнение имеет следующий вид:

$$\beta^2 \cdot \mathcal{G}^2 + n_1 \cdot \beta^2 \cdot \mathcal{G} + n_2 \cdot \beta^2 + n_3 \cdot \beta \cdot \mathcal{G}^2 + n_4 \cdot \beta \cdot \mathcal{G} + n_5 \cdot \beta + n_6 \cdot \mathcal{G}^2 + n_7 \cdot \mathcal{G} + n_8 = 0, \quad (1)$$

где
$$\beta = (p_s / p^*)^{1/4} \quad (1a)$$

и
$$\mathcal{G} = \frac{T_s}{T^*} + \frac{n_9}{(T_s/T^*) - n_{10}}, \quad (1б)$$

причем $p^* = 1$ МПа и $T^* = 1$ К – для коэффициентов $n_1 \dots n_{10}$ согласно табл. 1.

Решение уравнения (1) относительно давления насыщения p_s :

$$\frac{p_S}{p^*} = \left[\frac{2 \cdot C}{-B + (B^2 - 4 \cdot A \cdot C)^{1/2}} \right]^4, \quad (2)$$

если $p^* = 1$ МПа и

$$A = \vartheta^2 + n_1 \cdot \vartheta + n_2; \quad B = n_3 \cdot \vartheta^2 + n_4 \cdot \vartheta + n_5; \quad C = n_6 \cdot \vartheta^2 + n_7 \cdot \vartheta + n_8,$$

где ϑ соответствует уравнению (1б), а коэффициенты $n_1 \dots n_{10}$ – табл. 1.

Уравнение (2) действительно вдоль линии насыщения водяного пара от тройной точки воды до критической температуры, и поэтому может быть применено для температурного диапазона $273,15 \text{ K} \leq T \leq 647,096 \text{ K}$.

Формуляция IF-97 предоставляет три контрольные точки для проверки правильности вычислений по формуле (2):

$$\begin{aligned} T = 300 \text{ K}, & \quad p = 0,353 \ 658 \ 941 \times 10^{-2} \text{ МПа} \\ T = 500 \text{ K}, & \quad p = 0,263 \ 889 \ 776 \times 10^1 \text{ МПа} \\ T = 600 \text{ K}, & \quad p = 0,123 \ 443 \ 146 \times 10^2 \text{ МПа} \end{aligned}$$

Решение уравнения (1) относительно температуры насыщения T_S :

$$\frac{T_S}{T^*} = \frac{n_{10} + D - \left[(n_{10} + D)^2 - 4 \cdot (n_9 + n_{10} \cdot D) \right]^{1/2}}{2}, \quad (3)$$

если $T^* = 1 \text{ K}$ и

$$D = \frac{2 \cdot G}{-F - (F^2 - 4 \cdot E \cdot G)^{1/2}}$$

при $E = \beta^2 + n_3 \cdot \beta + n_6$; $F = n_1 \cdot \beta^2 + n_4 \cdot \beta + n_7$; $G = n_2 \cdot \beta^2 + n_5 \cdot \beta + n_8$, где β соответствует уравнению (1а), а коэффициенты $n_1 \dots n_{10}$ – табл. 1.

Уравнение (3) имеет тот же диапазон обоснованности, что и уравнение (2). Это означает, что оно действительно для линии насыщения водяного пара в диапазоне давлений $611,213 \text{ Па} \leq p \leq 22,064 \text{ МПа}$. Значение давления $611,213 \text{ Па}$ соответствует значению температуры, экстраполированной до $273,15 \text{ K}$, то есть, до $0 \text{ }^\circ\text{C}$.

Таблица 1. Значения коэффициентов $n_1 \dots n_{10}$ в формулах (1) ... (3)

i	n_i	i	n_i
1	$0,116 \ 705 \ 214 \ 527 \ 67 \times 10^4$	6	$0,149 \ 151 \ 086 \ 135 \ 30 \times 10^2$
2	$-0,724 \ 213 \ 167 \ 032 \ 06 \times 10^6$	7	$-0,482 \ 326 \ 573 \ 615 \ 91 \times 10^4$
3	$-0,170 \ 738 \ 469 \ 400 \ 92 \times 10^2$	8	$0,405 \ 113 \ 405 \ 420 \ 57 \times 10^6$
4	$0,120 \ 208 \ 247 \ 024 \ 70 \times 10^5$	9	$-0,238 \ 555 \ 575 \ 678 \ 49$
5	$-0,323 \ 255 \ 503 \ 223 \ 33 \times 10^7$	10	$0,650 \ 175 \ 348 \ 447 \ 98 \times 10^3$

Область жидкого состояния воды

Основным уравнением в области жидкого состояния воды является уравнение для удельной энергии Гиббса как функции приведенных (безразмерных) значений давления и температуры:

$$\frac{g(p, T)}{R \cdot T} = \gamma(\pi, \tau) = \sum_{i=1}^{34} A_i \cdot (7,1 - \pi)^{I_i} \cdot (\tau - 1,222)^{J_i}, \quad (4)$$

где $\pi = p / p^*$; $\tau = T^* / T$; $p^* = 16,53$ МПа; $T^* = 1386$ К; удельная газовая постоянная $R = 0,461526$ кДж / (кг·К).

Значения коэффициентов A_i и показателей степени I_i и J_i для этого уравнения приведены в табл. 2.

Таблица 2. Значения коэффициентов в формуле (4)

i	I_i	J_i	A_i	i	I_i	J_i	A_i
1	0	-2	0,14632971213167	18	2	3	-0,44141845330846×10 ⁻⁵
2	0	-1	-0,84548187169114×	19	2	17	-0,72694996297594×10 ⁻¹⁵
3	0	0	-0,37563603672040×10 ¹	20	3	-4	-0,31679644845054×10 ⁻⁴
4	0	1	0,33855169168385×10 ¹	21	3	0	-0,28270797985312×10 ⁻⁵
5	0	2	-0,95791963387872	22	3	6	-0,85205128120103×10 ⁻⁹
6	0	3	0,15772038513228	23	4	-5	-0,22425281908000×10 ⁻⁵
7	0	4	-0,16616417199501×10 ⁻¹	24	4	-2	-0,65171222895601×10 ⁻⁶
8	0	5	0,81214629983568×10 ⁻³	25	4	10	-0,14341729937924×10 ⁻¹²
9	1	-9	0,28319080123804×10 ⁻³	26	5	-8	-0,40516996860117×10 ⁻⁶
10	1	-7	-0,60706301565874×10 ⁻³	27	8	-11	-0,12734301741641×10 ⁻⁸
11	1	-1	-0,18990068218419×10 ⁻¹	28	8	-6	-0,17424871230634×10 ⁻⁹
12	1	0	-0,32529748770505×10 ⁻¹	29	21	-29	-0,68762131295531×10 ⁻¹⁸
13	1	1	-0,21841717175414×10 ⁻¹	30	23	-31	0,14478307828521×10 ⁻¹⁹
14	1	3	-0,52838357969930×10 ⁻⁴	31	29	-38	0,26335781662795×10 ⁻²²
15	2	-3	-0,47184321073267×10 ⁻³	32	30	-39	-0,11947622640071×10 ⁻²²
16	2	0	-0,30001780793026×10 ⁻³	33	31	-40	0,18228094581404×10 ⁻²³
17	2	1	0,47661393906987×10 ⁻⁴	34	32	-41	-0,93537087292458×10 ⁻²⁵

Все термодинамические параметры воды могут быть получены из уравнения (4) с помощью дифференциальных уравнений термодинамики. В частности, для удельного объема $v(\pi, \tau)$ справедливо выражение

$$v(\pi, \tau) = \frac{R \cdot T}{p} \cdot \pi \cdot \frac{\partial \gamma}{\partial \pi}, \quad (5)$$

для плотности воды $\rho(\pi, \tau)$ –

$$\rho(\pi, \tau) = \frac{1}{v(\pi, \tau)}, \quad (6)$$

для удельной энтальпии $h(p, T)$ –

$$h(\pi, \tau) = R \cdot T \cdot \tau \cdot \frac{\partial \gamma}{\partial \tau} = R \cdot T^* \cdot \frac{\partial \gamma}{\partial \tau}. \quad (7)$$

Частные производные в выражениях (5) и (7) могут быть получены численным дифференцированием функции (4) по соответствующему параметру, так как эта функция является принципиально гладкой для жидкой фазы воды. Но в соответствии с Формуляцией ИФ-97 допустимо использовать аналитические выражения для частных производных, полученные прямым дифференцированием ряда, используемого в выражении (4):

$$\frac{\partial \gamma}{\partial \pi} = \sum_{i=1}^{34} A_i \cdot (-I_i) \cdot (7,1 - \pi)^{(I_i-1)} \cdot (\tau - 1,222)^{J_i}; \quad (8)$$

$$\frac{\partial \gamma}{\partial \tau} = \sum_{i=1}^{34} A_i \cdot J_i \cdot (7,1 - \pi)^{I_i} \cdot (\tau - 1,222)^{(J_i-1)}. \quad (9)$$

Область перегретого пара

Основным в области перегретого пара является уравнение для удельной энергии Гиббса как функция приведенных (безразмерных) значений давления и температуры. В отличие от уравнения для жидкого состояния воды уравнение для перегретого пара (10) состоит из суммы двух компонентов: выражения для идеального газа (11) и поправки на реальные свойства водяного пара (12):

$$\frac{g(p, T)}{R \cdot T} = \gamma(\pi, \tau) = \gamma^0(\pi, \tau) + \gamma^r(\pi, \tau); \quad (10)$$

$$\gamma^0(\pi, \tau) = \ln \pi + \sum_{i=1}^9 n_i^0 \cdot \tau^{J_i^0}; \quad (11)$$

$$\gamma^r(\pi, \tau) = \sum_{i=1}^{43} n_i \cdot \pi^{I_i} \cdot (\tau - 0,5)^{J_i}, \quad (12)$$

где $\pi = p / p^*$; $\tau = T^* / T$; $p^* = 1,0$ МПа; $T^* = 540$ К; удельная газовая постоянная $R = 0,461526$ кДж / (кг·К) .

Значения коэффициентов n_i^0 и показателей степени J_i^0 для уравнения (11) приведены в табл. 3, а значения коэффициентов n_i и показателей степени I_i и J_i для уравнения (12) – в табл. 4.

Таблица 3. Значения коэффициентов в формуле (11)

i	J_i^0	n_i^0	i	J_i^0	n_i^0
1	0	$-0,96927686500217 \times 10$	6	-2	$0,14240819171444 \times 10$
2	1	$0,10086655968018 \times 10^2$	7	-1	$-0,43839511319450 \times 10$
3	-5	$-0,56087911283020 \times 10^{-2}$	8	2	$-0,28408632460772$
4	-4	$0,71452738081455 \times 10^{-1}$	9	3	$0,21268463753307 \times 10^{-1}$
5	-3	$-0,40710498223928$			

Таблица 4. Значения коэффициентов в формуле (12)

i	I_i	J_i	n_i	i	I_i	J_i	n_i
1	1	0	$-0,17731742473213 \times 10^{-2}$	23	7	0	$-0,59059564324270 \times 10^{-17}$
2	1	1	$-0,17834862292358 \times 10^{-1}$	24	7	11	$-0,12621808899101 \times 10^{-5}$
3	1	2	$-0,45996013696365 \times 10^{-1}$	25	7	25	$-0,38946842435739 \times 10^{-1}$
4	1	3	$-0,57581259083432 \times 10^{-1}$	26	8	8	$0,11256211360459 \times 10^{-10}$
5	1	6	$-0,50325278727930 \times 10^{-1}$	27	8	36	$-0,82311340897998 \times 10^1$
6	2	1	$-0,33032641670203 \times 10^{-4}$	28	9	13	$0,19809712802088 \times 10^{-7}$
7	2	2	$-0,18948987516315 \times 10^{-3}$	29	10	4	$0,10406965210174 \times 10^{-18}$
8	2	4	$-0,39392777243355 \times 10^{-2}$	30	10	10	$-0,10234747095929 \times 10^{-12}$
9	2	7	$-0,43797295650573 \times 10^{-1}$	31	10	14	$-0,10018179379511 \times 10^{-8}$
10	2	36	$-0,26674547914087 \times 10^{-4}$	32	16	29	$-0,80882908646985 \times 10^{-10}$
11	3	0	$0,20481737692309 \times 10^{-7}$	33	16	50	$0,10693031879409 \times 10^0$
12	3	1	$0,43870667284435 \times 10^{-6}$	34	18	57	$-0,33662250574171 \times 10^0$
13	3	3	$-0,32277677238570 \times 10^{-4}$	35	20	20	$0,89185845355421 \times 10^{-24}$
14	3	6	$-0,15033924542148 \times 10^{-2}$	36	20	35	$0,30629316876232 \times 10^{-12}$
15	3	35	$-0,40668253562649 \times 10^{-1}$	37	20	48	$-0,42002467698208 \times 10^{-5}$
16	4	1	$-0,78847309559367 \times 10^{-9}$	38	21	21	$-0,59056029685639 \times 10^{-25}$
17	4	2	$0,12790717852285 \times 10^{-7}$	39	22	53	$0,37826947613457 \times 10^{-5}$
18	4	3	$0,48225372718507 \times 10^{-6}$	40	23	39	$-0,12768608934681 \times 10^{-14}$
19	5	7	$0,22922076337661 \times 10^{-5}$	41	24	26	$0,73087610595061 \times 10^{-28}$
20	6	3	$-0,16714766451061 \times 10^{-10}$	42	24	40	$0,55414715350778 \times 10^{-16}$
21	6	16	$-0,21171472321355 \times 10^{-2}$	43	24	58	$-0,94369707241210 \times 10^{-6}$
22	6	35	$-0,23895741934104 \times 10^{-2}$				

Выражения для интересующих нас параметров перегретого водяного пара могут быть получены из уравнения (10) с помощью уже известных зависимостей (5)...(7) соответственно. Частные производные в выражениях (5) и (7) могут быть получены численным дифференцированием функции (12) по соответствующему параметру. Аналитические выражения для частных производных, полученные прямым дифференцированием рядов, используемых в выражениях (11) и (12), можно записать так:

$$\frac{\partial \gamma}{\partial \pi} = \frac{\partial \gamma^0}{\partial \pi} + \frac{\partial \gamma^r}{\partial \pi} = \frac{1}{\pi} + \sum_{i=1}^{43} n_i \cdot I_i \cdot \pi^{(I_i-1)} \cdot (\tau - 0,5)^{J_i}; \quad (13)$$

$$\frac{\partial \gamma}{\partial \tau} = \frac{\partial \gamma^0}{\partial \tau} + \frac{\partial \gamma^r}{\partial \tau} = \sum_{i=1}^9 n_i^0 \cdot J_i^0 \cdot \tau^{J_i^0-1} + \sum_{i=1}^{43} n_i \cdot \pi^{I_i} \cdot J_i \cdot (\tau - 0,5)^{J_i-1}. \quad (14)$$

Таким образом, окончательные выражения для вычисления удельного объема перегретого пара принимают следующий вид:

$$v(\pi, \tau) = \frac{R \cdot T}{p} \cdot \pi \cdot \frac{\partial \gamma}{\partial \pi} = \frac{R \cdot T}{p} \cdot \left[1 + \sum_{i=1}^{43} n_i \cdot I_i \cdot \pi^{I_i} \cdot (\tau - 0,5)^{J_i} \right]. \quad (15)$$

Для плотности:

$$\rho(\pi, \tau) = \frac{1}{v(\pi, \tau)}. \quad (16)$$

Для удельной энтальпии:

$$h(\pi, \tau) = R \cdot T \cdot \tau \cdot \frac{\partial \gamma}{\partial \tau} = R \cdot T^* \cdot \left[\sum_{i=1}^9 n_i^0 \cdot J_i^0 \cdot \tau^{J_i^0-1} + \sum_{i=1}^{43} n_i \cdot \pi^{I_i} \cdot J_i \cdot (\tau - 0,5)^{J_i-1} \right]. \quad (17)$$

Результаты вычислений

В приложении А представлены результаты вычисления линии насыщения как функции давления от температуры в соответствии с выражением (2). Формуляция IF-97 дает оценку погрешности вычисления давления $\pm 0,03\%$ для температур до $100\text{ }^\circ\text{C}$ и $\pm 0,05\%$ для более высоких температур.

В приложении Б представлены результаты вычисления линии насыщения как функции температуры от давления в соответствии с выражением (3).

В приложении В представлены результаты вычисления плотности воды по выражению (6) с применением ряда (8) и пара по выражению (16). Формуляция IF-97 дает оценку погрешности приведенных данных $\pm 0,003\%$ для жидкой фазы при температурах до $150\text{ }^\circ\text{C}$ и $\pm 0,015\%$ для более высоких температур, а для пара – до $\pm 0,05\%$.

В приложении Г представлены результаты вычисления удельной энтальпии воды по выражению (7) с применением ряда (9) и пара по выражению (17). Абсолютные погрешности вычисления удельной энтальпии,

рассчитанной по Формуляции IF-97, приведены в работе [1]. Однако эти оценки погрешности мало полезны для энергетических расчетов, когда необходимо вычислить разницу энергии при небольшом изменении температуры. Оценку относительной погрешности таких разностных вычислений можно произвести по аналогии с данными для удельной изобарной теплоемкости [4]: $\pm 0,2\%$ для жидкой фазы и до $\pm 0,3\%$ для пара.

Отзывы о справочном пособии, замечания и пожелания просим направлять по адресу: *measure@ukrpost.net*.

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Приложение А. Линия насыщения водяного пара как зависимость давления (кПа) от температуры

T °C	0	1	2	3	4	5	6	7	8	9
0	0,61121	0,65709	0,70599	0,75808	0,81355	0,87257	0,93535	1,00209	1,07299	1,14828
10	1,22818	1,31295	1,40282	1,49806	1,59894	1,70574	1,81876	1,93829	2,06466	2,19818
20	2,33921	2,48810	2,64521	2,81092	2,98563	3,16975	3,36369	3,56789	3,78281	4,00892
30	4,24669	4,49663	4,75925	5,03508	5,32469	5,62862	5,94747	6,28185	6,63237	6,99968
40	7,38443	7,78731	8,20901	8,65026	9,11180	9,59439	10,09881	10,62587	11,17640	11,75124
50	12,35127	12,97738	13,63050	14,31156	15,02154	15,76141	16,53221	17,33497	18,17075	19,04066
60	19,94580	20,88733	21,86641	22,88424	23,94205	25,04110	26,18266	27,36804	28,59858	29,87564
70	31,20064	32,57498	34,00012	35,47755	37,00878	38,59536	40,23887	41,94090	43,70310	45,52714
80	47,41472	49,36757	51,38745	53,47617	55,63555	57,86745	60,17378	62,55646	65,01744	67,55873
90	70,18236	72,89039	75,68491	78,56806	81,54200	84,60894	87,77110	91,03077	94,39023	97,85185
100	101,4180	105,0910	108,8735	112,7678	116,7765	120,9021	125,1472	129,5145	134,0065	138,6261
110	143,3760	148,2588	153,2775	158,4348	163,7337	169,1770	174,7678	180,5090	186,4036	192,4547
120	198,6654	205,0389	211,5782	218,2867	225,1676	232,2242	239,4597	246,8776	254,4813	262,2741
130	270,2596	278,4413	286,8226	295,4073	304,1989	313,2010	322,4175	331,8519	341,5081	351,3898
140	361,5010	371,8454	382,4271	393,2499	404,3178	415,6349	427,2053	439,0329	451,1220	463,4768
150	476,1014	489,0000	502,1771	515,6367	529,3834	543,4216	557,7555	572,3897	587,3287	602,5770
160	618,1392	634,0198	650,2236	666,7551	683,6191	700,8204	718,3636	736,2536	754,4953	773,0935
170	792,0532	811,3792	831,0766	851,1505	871,6057	892,4475	913,6809	935,3111	957,3433	979,7827
180	1002,635	1025,904	1049,597	1073,718	1098,273	1123,267	1148,706	1174,595	1200,939	1227,745
190	1255,018	1282,763	1310,986	1339,693	1368,890	1398,581	1428,774	1459,474	1490,686	1522,417
200	1554,672	1587,457	1620,779	1654,644	1689,056	1724,023	1759,551	1795,646	1832,313	1869,559
210	1907,391	1945,814	1984,835	2024,460	2064,695	2105,547	2147,023	2189,128	2231,870	2275,254
220	2319,288	2363,977	2409,329	2455,350	2502,046	2549,425	2597,493	2646,257	2695,724	2745,900

Приложение Б. Линия насыщения водяного пара как зависимость температуры (°С) от давления

МПа	0,0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9
0,0	-----	99,606	120,212	133,525	143,613	151,836	158,832	164,953	170,414	175,358
1,0	179,886	184,07	187,965	191,613	195,047	198,295	201,378	204,315	207,12	209,806
2,0	212,385	214,865	217,256	219,564	221,795	223,956	226,052	228,086	230,063	231,986
3,0	233,858	235,684	237,464	239,203	240,901	242,562	244,186	245,776	247,334	248,861
4,0	250,358	251,826	253,267	254,683	256,073	257,439	258,783	260,104	261,404	262,683
5,0	263,943	265,183	266,405	267,61	268,797	269,967	271,121	272,260	273,383	274,492
6,0	275,586	276,667	277,734	278,788	279,83	280,859	281,876	282,881	283,875	284,858
7,0	285,830	286,791	287,743	288,684	289,615	290,537	291,449	292,352	293,247	294,132
8,0	295,009	295,878	296,738	297,591	298,435	299,272	300,102	300,924	301,738	302,546
9,0	303,347	304,141	304,928	305,709	306,483	307,251	308,013	308,768	309,518	310,262
10,0	310,999	311,732	312,458	313,180	313,895	314,606	315,311	316,011	316,706	317,396

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,1 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	999,8436	999,9023	999,9433	999,9673	999,9748	999,9663	999,9423	999,9034	999,8499	999,7823
10	999,7009	999,6062	999,4984	999,3780	999,2453	999,1005	998,9439	998,7759	998,5967	998,4064
20	998,2055	997,9940	997,7723	997,5405	997,2988	997,0474	996,7866	996,5164	996,2370	995,9487
30	995,6515	995,3456	995,0312	994,7083	994,3772	994,0379	993,6907	993,3355	992,9725	992,6019
40	992,2237	991,8380	991,4450	991,0447	990,6372	990,2227	989,8012	989,3728	988,9375	988,4955
50	988,0469	987,5917	987,1300	986,6618	986,1873	985,7064	985,2194	984,7261	984,2268	983,7214
60	983,2100	982,6927	982,1695	981,6405	981,1058	980,5653	980,0191	979,4673	978,9100	978,3471
70	977,7787	977,2049	976,6257	976,0411	975,4512	974,8561	974,2557	973,6500	973,0393	972,4233
80	971,8023	971,1762	970,5451	969,9089	969,2678	968,6217	967,9707	967,3148	966,6541	965,9885
90	965,3181	964,6428	963,9628	963,2781	962,5886	961,8945	961,1956	960,4920	959,7839	959,0710
100	0,589637	0,587934	0,586244	0,584565	0,582898	0,581242	0,579597	0,577963	0,576340	0,574727
110	0,573125	0,571533	0,569952	0,568380	0,566819	0,565267	0,563725	0,562192	0,560669	0,559155
120	0,557651	0,556155	0,554669	0,553191	0,551722	0,550262	0,548811	0,547368	0,545933	0,544507
130	0,543089	0,541679	0,540277	0,538883	0,537497	0,536119	0,534749	0,533386	0,532031	0,530684
140	0,529343	0,528011	0,526685	0,525367	0,524056	0,522752	0,521454	0,520164	0,518881	0,517605
150	0,516335	0,515072	0,513816	0,512566	0,511323	0,510086	0,508856	0,507632	0,506414	0,505202
160	0,503997	0,502798	0,501605	0,500417	0,499236	0,498061	0,496892	0,495728	0,494570	0,493418
170	0,492271	0,491131	0,489995	0,488866	0,487741	0,486623	0,485509	0,484401	0,483298	0,482201
180	0,481109	0,480021	0,478939	0,477863	0,476791	0,475724	0,474662	0,473606	0,472554	0,471507
190	0,470464	0,469427	0,468394	0,467366	0,466343	0,465325	0,464311	0,463301	0,462296	0,461296
200	0,460300	0,459309	0,458322	0,457339	0,456361	0,455387	0,454418	0,453453	0,452491	0,451535
210	0,450582	0,449633	0,448689	0,447749	0,446812	0,445880	0,444952	0,444028	0,443107	0,442191
220	0,441279	0,440370	0,439465	0,438564	0,437667	0,436774	0,435884	0,434998	0,434116	0,433237

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,101325 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	999,8443	999,9030	999,9440	999,9679	999,9754	999,9669	999,9430	999,9040	999,8505	999,7829
10	999,7015	999,6068	999,4991	999,3787	999,2459	999,1011	998,9446	998,7765	998,5973	998,4070
20	998,2061	997,9946	997,7729	997,5411	997,2994	997,0480	996,7872	996,5170	996,2376	995,9492
30	995,6521	995,3462	995,0317	994,7089	994,3778	994,0385	993,6913	993,3361	992,9731	992,6025
40	992,2243	991,8386	991,4456	991,0453	990,6378	990,2233	989,8018	989,3733	988,9381	988,4961
50	988,0475	987,5923	987,1305	986,6624	986,1878	985,7070	985,2199	984,7267	984,2274	983,7220
60	983,2106	982,6933	982,1701	981,6411	981,1063	980,5659	980,0197	979,4679	978,9105	978,3477
70	977,7793	977,2055	976,6263	976,0417	975,4518	974,8567	974,2562	973,6506	973,0398	972,4239
80	971,8029	971,1768	970,5457	969,9095	969,2684	968,6223	967,9713	967,3154	966,6547	965,9891
90	965,3187	964,6434	963,9635	963,2787	962,5892	961,8951	961,1962	960,4927	959,7845	959,0717
100	0,597579	0,595851	0,594136	0,592433	0,590741	0,589061	0,587392	0,585735	0,584088	0,582452
110	0,580827	0,579213	0,577608	0,576014	0,574430	0,572856	0,571292	0,569738	0,568193	0,566657
120	0,565131	0,563615	0,562107	0,560608	0,559119	0,557638	0,556166	0,554703	0,553248	0,551801
130	0,550363	0,548934	0,547512	0,546099	0,544693	0,543296	0,541907	0,540525	0,539151	0,537784
140	0,536425	0,535074	0,533730	0,532393	0,531064	0,529742	0,528426	0,527118	0,525817	0,524523
150	0,523236	0,521955	0,520682	0,519415	0,518154	0,516900	0,515653	0,514412	0,513177	0,511949
160	0,510727	0,509511	0,508302	0,507098	0,505901	0,504709	0,503524	0,502344	0,501170	0,500002
170	0,498840	0,497683	0,496533	0,495387	0,494248	0,493113	0,491985	0,490861	0,489744	0,488631
180	0,487524	0,486422	0,485325	0,484233	0,483147	0,482066	0,480989	0,479918	0,478852	0,477791
190	0,476734	0,475683	0,474636	0,473594	0,472557	0,471524	0,470496	0,469473	0,468455	0,467441
200	0,466432	0,465427	0,464426	0,463430	0,462439	0,461452	0,460469	0,459491	0,458517	0,457547
210	0,456581	0,455620	0,454662	0,453709	0,452760	0,451816	0,450875	0,449938	0,449005	0,448076
220	0,447152	0,446231	0,445314	0,444401	0,443491	0,442586	0,441684	0,440786	0,439892	0,439002

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,2 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	999,8945	999,9528	999,9934	1000,0171	1000,0242	1000,0154	999,9912	999,9520	999,8982	999,8303
10	999,7487	999,6537	999,5457	999,4251	999,2921	999,1471	998,9904	998,8222	998,6427	998,4523
20	998,2512	998,0396	997,8177	997,5858	997,3440	997,0925	996,8315	996,5611	996,2817	995,9932
30	995,6959	995,3900	995,0754	994,7525	994,4213	994,0820	993,7346	993,3794	993,0164	992,6457
40	992,2674	991,8817	991,4887	991,0883	990,6808	990,2663	989,8447	989,4163	988,9810	988,5390
50	988,0904	987,6352	987,1734	986,7053	986,2308	985,7499	985,2629	984,7697	984,2703	983,7650
60	983,2536	982,7363	982,2132	981,6842	981,1495	980,6090	980,0629	979,5112	978,9539	978,3910
70	977,8227	977,2490	976,6698	976,0853	975,4955	974,9004	974,3001	973,6945	973,0838	972,4680
80	971,8470	971,2210	970,5900	969,9539	969,3129	968,6669	968,0160	967,3602	966,6995	966,0340
90	965,3637	964,6886	964,0087	963,3241	962,6347	961,9407	961,2419	960,5385	959,8305	959,1178
100	958,4005	957,6786	956,9521	956,2211	955,4855	954,7453	954,0007	953,2515	952,4978	951,7397
110	950,9771	950,2100	949,4384	948,6624	947,8819	947,0971	946,3077	945,5140	944,7159	943,9133
120	943,1063	1,126458	1,123249	1,120064	1,116902	1,113764	1,110648	1,107555	1,104483	1,101433
130	1,098404	1,095395	1,092407	1,089439	1,086490	1,083561	1,080651	1,077760	1,074887	1,072033
140	1,069197	1,066379	1,063578	1,060795	1,058029	1,055280	1,052547	1,049832	1,047132	1,044449
150	1,041782	1,039130	1,036494	1,033874	1,031268	1,028678	1,026103	1,023542	1,020996	1,018465
160	1,015948	1,013445	1,010955	1,008480	1,006019	1,003570	1,001136	0,998714	0,996306	0,993911
170	0,991528	0,989159	0,986802	0,984457	0,982125	0,979805	0,977498	0,975202	0,972918	0,970646
180	0,968386	0,966137	0,963900	0,961674	0,959460	0,957256	0,955064	0,952883	0,950712	0,948553
190	0,946404	0,944265	0,942137	0,940020	0,937913	0,935816	0,933729	0,931652	0,929585	0,927528
200	0,925481	0,923444	0,921416	0,919398	0,917390	0,915390	0,913401	0,911420	0,909448	0,907486
210	0,905533	0,903589	0,901653	0,899727	0,897809	0,895900	0,893999	0,892108	0,890224	0,888349
220	0,886483	0,884624	0,882774	0,880933	0,879099	0,877273	0,875456	0,873646	0,871844	0,870050

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	999,9454	1000,0033	1000,0436	1000,0669	1000,0737	1000,0646	1000,0400	1000,0005	999,9465	999,8783
10	999,7964	999,7012	999,5930	999,4722	999,3390	999,1938	999,0368	998,8684	998,6888	998,4982
20	998,2970	998,0852	997,8632	997,6311	997,3891	997,1375	996,8763	996,6059	996,3263	996,0378
30	995,7404	995,4343	995,1197	994,7967	994,4654	994,1260	993,7786	993,4233	993,0602	992,6895
40	992,3112	991,9254	991,5323	991,1319	990,7244	990,3098	989,8883	989,4598	989,0245	988,5825
50	988,1339	987,6786	987,2169	986,7488	986,2742	985,7934	985,3064	984,8132	984,3139	983,8085
60	983,2972	982,7800	982,2568	981,7279	981,1932	980,6528	980,1067	979,5550	978,9978	978,4350
70	977,8667	977,2930	976,7139	976,1295	975,5397	974,9447	974,3444	973,7390	973,1283	972,5126
80	971,8917	971,2658	970,6348	969,9989	969,3579	968,7120	968,0612	967,4055	966,7450	966,0796
90	965,4094	964,7344	964,0546	963,3701	962,6809	961,9869	961,2883	960,5850	959,8771	959,1645
100	958,4473	957,7256	956,9992	956,2683	955,5329	954,7929	954,0484	953,2994	952,5459	951,7879
110	951,0254	950,2584	949,4870	948,7112	947,9309	947,1462	946,3571	945,5635	944,7655	943,9632
120	943,1564	942,3452	941,5296	940,7097	939,8853	939,0566	938,2235	937,3860	936,5441	935,6978
130	934,8471	933,9921	933,1326	932,2688	1,648497	1,643781	1,639103	1,634464	1,629861	1,625294
140	1,620761	1,616263	1,611798	1,607366	1,602966	1,598597	1,594260	1,589952	1,585675	1,581426
150	1,577207	1,573015	1,568852	1,564716	1,560608	1,556526	1,552470	1,548441	1,544437	1,540458
160	1,536504	1,532575	1,528670	1,524789	1,520932	1,517099	1,513288	1,509500	1,505735	1,501992
170	1,498271	1,494572	1,490894	1,487238	1,483603	1,479988	1,476394	1,472821	1,469267	1,465734
180	1,462220	1,458725	1,455250	1,451794	1,448357	1,444939	1,441539	1,438157	1,434794	1,431448
190	1,428120	1,424810	1,421517	1,418242	1,414983	1,411742	1,408517	1,405308	1,402116	1,398941
200	1,395781	1,392638	1,389510	1,386398	1,383302	1,380221	1,377155	1,374104	1,371068	1,368048
210	1,365041	1,362050	1,359073	1,356110	1,353162	1,350227	1,347307	1,344400	1,341507	1,338628
220	1,335762	1,332910	1,330071	1,327245	1,324432	1,321633	1,318846	1,316071	1,313310	1,310561

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,4 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	999,9962	1000,0537	1000,0937	1000,1166	1000,1231	1000,1137	1000,0889	1000,0491	999,9947	999,9263
10	999,8442	999,7487	999,6403	999,5192	999,3858	999,2404	999,0833	998,9147	998,7349	998,5441
20	998,3427	998,1307	997,9086	997,6763	997,4342	997,1825	996,9212	996,6507	996,3710	996,0823
30	995,7848	995,4787	995,1640	994,8409	994,5095	994,1701	993,8226	993,4672	993,1041	992,7333
40	992,3549	991,9691	991,5760	991,1756	990,7680	990,3534	989,9318	989,5033	989,0680	988,6260
50	988,1773	987,7221	987,2604	986,7922	986,3177	985,8369	985,3499	984,8567	984,3574	983,8521
60	983,3408	982,8236	982,3005	981,7716	981,2369	980,6965	980,1505	979,5989	979,0416	978,4789
70	977,9107	977,3371	976,7580	976,1737	975,5840	974,9890	974,3888	973,7834	973,1729	972,5572
80	971,9364	971,3106	970,6797	970,0438	969,4029	968,7572	968,1065	967,4509	966,7904	966,1251
90	965,4550	964,7801	964,1005	963,4161	962,7269	962,0331	961,3346	960,6315	959,9237	959,2112
100	958,4942	957,7726	957,0464	956,3156	955,5803	954,8404	954,0961	953,3472	952,5938	951,8360
110	951,0737	950,3069	949,5357	948,7600	947,9799	947,1953	946,4064	945,6130	944,8152	944,0130
120	943,2064	942,3954	941,5800	940,7603	939,9361	939,1076	938,2746	937,4373	936,5957	935,7496
130	934,8991	934,0443	933,1851	932,3215	931,4535	930,5811	929,7043	928,8231	927,9374	927,0474
140	926,1529	925,2541	924,3507	923,4430	2,160239	2,154008	2,147833	2,141710	2,135640	2,129620
150	2,123650	2,117726	2,111850	2,106018	2,100231	2,094488	2,088787	2,083128	2,077510	2,071932
160	2,066393	2,060893	2,055431	2,050007	2,044620	2,039268	2,033953	2,028673	2,023428	2,018216
170	2,013039	2,007895	2,002784	1,997705	1,992657	1,987642	1,982657	1,977704	1,972780	1,967887
180	1,963023	1,958188	1,953382	1,948605	1,943856	1,939135	1,934441	1,929774	1,925135	1,920522
190	1,915935	1,911374	1,906839	1,902329	1,897845	1,893385	1,888950	1,884539	1,880153	1,875790
200	1,871451	1,867135	1,862842	1,858573	1,854325	1,850101	1,845898	1,841717	1,837559	1,833421
210	1,829305	1,825210	1,821136	1,817083	1,813050	1,809038	1,805046	1,801074	1,797121	1,793188
220	1,789275	1,785380	1,781505	1,777649	1,773811	1,769992	1,766192	1,762409	1,758645	1,754899

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,5 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1000,0470	1000,1042	1000,1438	1000,1664	1000,1726	1000,1628	1000,1377	1000,0976	1000,0430	999,9743
10	999,8919	999,7962	999,6876	999,5663	999,4326	999,2870	999,1297	998,9609	998,7809	998,5900
20	998,3884	998,1763	997,9540	997,7216	997,4793	997,2275	996,9661	996,6954	996,4156	996,1268
30	995,8293	995,5230	995,2082	994,8850	994,5536	994,2141	993,8665	993,5111	993,1479	992,7770
40	992,3986	992,0128	991,6196	991,2192	990,8116	990,3969	989,9753	989,5468	989,1115	988,6695
50	988,2208	987,7656	987,3038	986,8357	986,3612	985,8804	985,3934	984,9002	984,4009	983,8956
60	983,3843	982,8671	982,3441	981,8152	981,2806	980,7403	980,1943	979,6427	979,0855	978,5228
70	977,9547	977,3811	976,8021	976,2178	975,6282	975,0333	974,4332	973,8279	973,2174	972,6018
80	971,9811	971,3553	970,7245	970,0887	969,4480	968,8023	968,1517	967,4962	966,8358	966,1706
90	965,5006	964,8259	964,1463	963,4620	962,7730	962,0793	961,3809	960,6779	959,9702	959,2579
100	958,5410	957,8195	957,0935	956,3628	955,6277	954,8880	954,1438	953,3950	952,6418	951,8841
110	951,1220	950,3553	949,5843	948,8088	948,0288	947,2444	946,4556	945,6624	944,8648	944,0628
120	943,2564	942,4456	941,6304	940,8108	939,9869	939,1585	938,3258	937,4887	936,6472	935,8014
130	934,9511	934,0965	933,2375	932,3741	931,5063	930,6341	929,7576	928,8766	927,9912	927,1014
140	926,2072	925,3086	924,4055	923,4980	922,5860	921,6696	920,7487	919,8233	918,8934	917,9591
150	917,0202	916,0768	2,666777	2,658997	2,651292	2,643658	2,636092	2,628593	2,621159	2,613788
160	2,606478	2,599227	2,592034	2,584898	2,577817	2,570790	2,563817	2,556895	2,550024	2,543203
170	2,536431	2,529708	2,523032	2,516402	2,509818	2,503280	2,496786	2,490335	2,483928	2,477563
180	2,471240	2,464958	2,458717	2,452516	2,446355	2,440232	2,434148	2,428102	2,422094	2,416122
190	2,410188	2,404289	2,398426	2,392598	2,386805	2,381046	2,375322	2,369631	2,363973	2,358348
200	2,352755	2,347194	2,341665	2,336167	2,330701	2,325265	2,319859	2,314483	2,309137	2,303820
210	2,298532	2,293273	2,288042	2,282840	2,277665	2,272517	2,267397	2,262304	2,257238	2,252198
220	2,247184	2,242196	2,237234	2,232297	2,227386	2,222499	2,217637	2,212800	2,207986	2,203197

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,6 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,0979	1000,1547	1000,1939	1000,2162	1000,2220	1000,2120	1000,1865	1000,1461	1000,0913	1000,0223
10	999,9397	999,8437	999,7348	999,6133	999,4795	999,3336	999,1761	999,0071	998,8269	998,6359
20	998,4341	998,2218	997,9994	997,7668	997,5245	997,2724	997,0110	996,7402	996,4603	996,1714
30	995,8737	995,5673	995,2525	994,9292	994,5977	994,2581	993,9105	993,5550	993,1917	992,8208
40	992,4424	992,0565	991,6632	991,2628	990,8551	990,4405	990,0188	989,5903	989,1550	988,7129
50	988,2643	987,8090	987,3473	986,8791	986,4046	985,9238	985,4368	984,9437	984,4444	983,9391
60	983,4279	982,9107	982,3877	981,8589	981,3243	980,7840	980,2380	979,6865	979,1294	978,5668
70	977,9987	977,4251	976,8462	976,2620	975,6724	975,0776	974,4775	973,8723	973,2619	972,6464
80	972,0257	971,4001	970,7694	970,1337	969,4930	968,8474	968,1969	967,5415	966,8812	966,2161
90	965,5463	964,8716	964,1922	963,5080	962,8191	962,1255	961,4273	960,7243	960,0168	959,3046
100	958,5878	957,8665	957,1406	956,4101	955,6750	954,9355	954,1914	953,4428	952,6898	951,9322
110	951,1702	950,4038	949,6329	948,8575	948,0777	947,2935	946,5049	945,7119	944,9144	944,1126
120	943,3064	942,4958	941,6808	940,8614	940,0376	939,2095	938,3769	937,5400	936,6988	935,8531
130	935,0031	934,1487	933,2899	932,4267	931,5592	930,6872	929,8109	928,9301	928,0450	927,1554
140	926,2615	925,3631	924,4602	923,5530	922,6413	921,7251	920,8045	919,8793	918,9497	918,0156
150	917,0770	916,1339	915,1862	914,2340	913,2772	912,3158	911,3499	910,3793	909,4041	3,167241
160	3,157900	3,148652	3,139495	3,130424	3,121438	3,112532	3,103705	3,094955	3,086279	3,077675
170	3,069142	3,060677	3,052280	3,043948	3,035681	3,027477	3,019334	3,011252	3,003229	2,995265
180	2,987358	2,979507	2,971712	2,963971	2,956284	2,948650	2,941067	2,933536	2,926056	2,918625
190	2,911243	2,903909	2,896623	2,889384	2,882191	2,875044	2,867942	2,860884	2,853870	2,846900
200	2,839973	2,833088	2,826244	2,819442	2,812681	2,805960	2,799278	2,792636	2,786033	2,779468
210	2,772941	2,766451	2,759998	2,753582	2,747203	2,740859	2,734551	2,728277	2,722038	2,715834
220	2,709663	2,703526	2,697422	2,691351	2,685313	2,679306	2,673332	2,667389	2,661477	2,655596

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,1487	1000,2051	1000,2440	1000,2659	1000,2714	1000,2611	1000,2353	1000,1946	1000,1395	1000,0703
10	999,9874	999,8912	999,7820	999,6603	999,5263	999,3802	999,2225	999,0533	998,8730	998,6817
20	998,4798	998,2674	998,0447	997,8121	997,5696	997,3174	997,0558	996,7849	996,5049	996,2159
30	995,9181	995,6117	995,2967	994,9734	994,6418	994,3021	993,9544	993,5988	993,2355	992,8646
40	992,4861	992,1001	991,7069	991,3063	990,8987	990,4840	990,0623	989,6338	989,1984	988,7564
50	988,3077	987,8524	987,3907	986,9226	986,4481	985,9673	985,4803	984,9872	984,4879	983,9827
60	983,4714	982,9543	982,4313	981,9025	981,3680	980,8277	980,2818	979,7303	979,1732	978,6107
70	978,0426	977,4691	976,8903	976,3061	975,7166	975,1219	974,5219	973,9167	973,3064	972,6909
80	972,0704	971,4448	970,8142	970,1786	969,5380	968,8925	968,2421	967,5868	966,9266	966,2616
90	965,5919	964,9173	964,2380	963,5539	962,8652	962,1717	961,4736	960,7708	960,0633	959,3513
100	958,6347	957,9134	957,1876	956,4573	955,7224	954,9830	954,2391	953,4906	952,7377	951,9803
110	951,2185	950,4522	949,6814	948,9063	948,1266	947,3426	946,5542	945,7613	944,9640	944,1624
120	943,3563	942,5459	941,7311	940,9119	940,0883	939,2604	938,4281	937,5914	936,7503	935,9049
130	935,0550	934,2008	933,3423	932,4793	931,6120	930,7403	929,8641	928,9836	928,0987	927,2094
140	926,3157	925,4175	924,5150	923,6079	922,6965	921,7806	920,8602	919,9354	919,0060	918,0722
150	917,1339	916,1910	915,2436	914,2917	913,3352	912,3741	911,4084	910,4381	909,4632	908,4837
160	907,4995	906,5106	905,5170	904,5187	903,5156	3,665653	3,654705	3,643874	3,633153	3,622540
170	3,612029	3,601618	3,591303	3,581081	3,570949	3,560905	3,550946	3,541071	3,531277	3,521563
180	3,511926	3,502365	3,492878	3,483464	3,474121	3,464849	3,455645	3,446509	3,437439	3,428434
190	3,419494	3,410616	3,401801	3,393047	3,384353	3,375718	3,367141	3,358622	3,350160	3,341754
200	3,333403	3,325106	3,316862	3,308672	3,300533	3,292447	3,284410	3,276424	3,268488	3,260600
210	3,252761	3,244969	3,237224	3,229526	3,221873	3,214266	3,206704	3,199186	3,191711	3,184280
220	3,176892	3,169546	3,162242	3,154979	3,147756	3,140575	3,133433	3,126330	3,119267	3,112242

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,1995	1000,2555	1000,2941	1000,3156	1000,3208	1000,3102	1000,2841	1000,2432	1000,1877	1000,1182
10	1000,0351	999,9387	999,8293	999,7073	999,5730	999,4268	999,2689	999,0995	998,9190	998,7276
20	998,5255	998,3129	998,0901	997,8573	997,6147	997,3624	997,1006	996,8296	996,5495	996,2604
30	995,9625	995,6560	995,3409	995,0175	994,6858	994,3461	993,9983	993,6427	993,2793	992,9083
40	992,5298	992,1438	991,7505	991,3499	990,9422	990,5275	990,1058	989,6773	989,2419	988,7998
50	988,3511	987,8959	987,4341	986,9660	986,4915	986,0107	985,5237	985,0306	984,5314	984,0262
60	983,5150	982,9979	982,4749	981,9461	981,4116	980,8714	980,3256	979,7741	979,2171	978,6546
70	978,0866	977,5132	976,9344	976,3502	975,7608	975,1661	974,5662	973,9611	973,3509	972,7355
80	972,1150	971,4895	970,8590	970,2235	969,5830	968,9376	968,2873	967,6321	966,9720	966,3071
90	965,6375	964,9630	964,2838	963,5998	962,9112	962,2179	961,5198	960,8172	960,1099	959,3980
100	958,6814	957,9604	957,2347	956,5045	955,7697	955,0305	954,2867	953,5384	952,7857	952,0284
110	951,2667	950,5006	949,7300	948,9550	948,1755	947,3917	946,6034	945,8107	945,0136	944,2122
120	943,4063	942,5960	941,7814	940,9624	940,1390	939,3113	938,4792	937,6427	936,8018	935,9566
130	935,1070	934,2530	933,3946	932,5319	931,6648	930,7933	929,9174	929,0371	928,1525	927,2634
140	926,3699	925,4720	924,5697	923,6629	922,7517	921,8360	920,9159	919,9913	919,0623	918,1287
150	917,1907	916,2481	915,3010	914,3493	913,3931	912,4323	911,4670	910,4970	909,5224	908,5432
160	907,5593	906,5707	905,5774	904,5794	903,5767	902,5692	901,5570	900,5399	899,5180	898,4913
170	897,4597	4,153593	4,141095	4,128733	4,116501	4,104394	4,092408	4,080537	4,068779	4,057129
180	4,045585	4,034144	4,022801	4,011556	4,000406	3,989348	3,978380	3,967501	3,956708	3,946000
190	3,935374	3,924830	3,914366	3,903980	3,893671	3,883438	3,873279	3,863193	3,853179	3,843236
200	3,833363	3,823558	3,813820	3,804149	3,794544	3,785003	3,775526	3,766112	3,756759	3,747467
210	3,738236	3,729064	3,719950	3,710895	3,701896	3,692953	3,684066	3,675234	3,666456	3,657732
220	3,649060	3,640441	3,631873	3,623355	3,614888	3,606471	3,598103	3,589783	3,581512	3,573288

Приложение В. Плотность (кг/м³) как функция температуры при давлении 0,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,2502	1000,3059	1000,3441	1000,3654	1000,3702	1000,3592	1000,3329	1000,2917	1000,2359	1000,1662
10	1000,0828	999,9861	999,8765	999,7543	999,6198	999,4734	999,3152	999,1457	998,9650	998,7734
20	998,5711	998,3584	998,1355	997,9025	997,6597	997,4073	997,1455	996,8743	996,5941	996,3049
30	996,0069	995,7003	995,3851	995,0616	994,7299	994,3901	994,0422	993,6866	993,3231	992,9521
40	992,5735	992,1874	991,7941	991,3935	990,9858	990,5710	990,1493	989,7207	989,2853	988,8433
50	988,3946	987,9393	987,4776	987,0094	986,5349	986,0542	985,5672	985,0741	984,5749	984,0697
60	983,5585	983,0414	982,5185	981,9898	981,4553	980,9151	980,3693	979,8179	979,2609	978,6984
70	978,1305	977,5571	976,9784	976,3944	975,8050	975,2104	974,6105	974,0055	973,3953	972,7800
80	972,1597	971,5342	970,9038	970,2684	969,6280	968,9826	968,3324	967,6773	967,0174	966,3526
90	965,6830	965,0087	964,3296	963,6458	962,9572	962,2640	961,5661	960,8636	960,1564	959,4446
100	958,7282	958,0073	957,2817	956,5517	955,8171	955,0779	954,3343	953,5862	952,8336	952,0765
110	951,3150	950,5490	949,7786	949,0037	948,2244	947,4407	946,6526	945,8601	945,0632	944,2619
120	943,4562	942,6462	941,8317	941,0129	940,1897	939,3622	938,5302	937,6940	936,8533	936,0083
130	935,1589	934,3051	933,4470	932,5845	931,7176	930,8463	929,9706	929,0906	928,2062	927,3173
140	926,4241	925,5264	924,6243	923,7178	922,8069	921,8915	920,9716	920,0473	919,1185	918,1852
150	917,2475	916,3052	915,3583	914,4070	913,4511	912,4906	911,5255	910,5558	909,5815	908,6026
160	907,6190	906,6308	905,6378	904,6402	903,6378	902,6306	901,6187	900,6020	899,5805	898,5541
170	897,5228	896,4867	895,4456	894,3996	893,3486	892,2926	4,644733	4,630599	4,616624	4,602801
180	4,589124	4,575588	4,562187	4,548917	4,535774	4,522753	4,509852	4,497066	4,484392	4,471828
190	4,459371	4,447019	4,434769	4,422619	4,410566	4,398609	4,386746	4,374975	4,363294	4,351702
200	4,340197	4,328778	4,317442	4,306189	4,295018	4,283926	4,272913	4,261978	4,251119	4,240335
210	4,229625	4,218987	4,208422	4,197927	4,187503	4,177147	4,166859	4,156638	4,146482	4,136392
220	4,126367	4,116404	4,106505	4,096667	4,086889	4,077173	4,067515	4,057917	4,048376	4,038892

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,3010	1000,3563	1000,3942	1000,4151	1000,4196	1000,4083	1000,3817	1000,3401	1000,2842	1000,2141
10	1000,1305	1000,0336	999,9237	999,8013	999,6666	999,5199	999,3616	999,1919	999,0110	998,8192
20	998,6168	998,4039	998,1808	997,9477	997,7048	997,4523	997,1903	996,9190	996,6387	996,3494
30	996,0513	995,7446	995,4293	995,1058	994,7740	994,4340	994,0861	993,7304	993,3669	992,9958
40	992,6171	992,2311	991,8377	991,4371	991,0293	990,6145	990,1928	989,7642	989,3288	988,8867
50	988,4380	987,9827	987,5210	987,0528	986,5783	986,0976	985,6106	985,1175	984,6184	984,1132
60	983,6020	983,0850	982,5621	982,0334	981,4989	980,9588	980,4130	979,8616	979,3047	978,7423
70	978,1744	977,6011	977,0225	976,4385	975,8492	975,2546	974,6548	974,0499	973,4398	972,8246
80	972,2043	971,5789	970,9486	970,3132	969,6729	969,0277	968,3776	967,7226	967,0627	966,3981
90	965,7286	965,0544	964,3754	963,6917	963,0032	962,3101	961,6124	960,9099	960,2029	959,4912
100	958,7750	958,0542	957,3288	956,5989	955,8644	955,1254	954,3819	953,6339	952,8815	952,1246
110	951,3632	950,5974	949,8271	949,0524	948,2733	947,4898	946,7018	945,9095	945,1128	944,3116
120	943,5061	942,6963	941,8820	941,0634	940,2404	939,4130	938,5813	937,7452	936,9048	936,0600
130	935,2108	934,3572	933,4993	932,6370	931,7703	930,8993	930,0239	929,1440	928,2598	927,3712
140	926,4782	925,5808	924,6790	923,7727	922,8620	921,9469	921,0273	920,1033	919,1747	918,2417
150	917,3042	916,3622	915,4157	914,4646	913,5090	912,5488	911,5840	910,6146	909,6406	908,6620
160	907,6787	906,6908	905,6982	904,7009	903,6988	902,6920	901,6804	900,6641	899,6429	898,6169
170	897,5860	896,5502	895,5095	894,4638	893,4132	892,3576	891,2970	890,2313	889,1605	888,0846
180	5,143554	5,127641	5,111917	5,096373	5,081002	5,065797	5,050751	5,035858	5,021113	5,006511
190	4,992049	4,977721	4,963524	4,949455	4,935509	4,921685	4,907979	4,894388	4,880910	4,867542
200	4,854283	4,841130	4,828080	4,815132	4,802285	4,789535	4,776882	4,764324	4,751859	4,739485
210	4,727202	4,715007	4,702899	4,690878	4,678940	4,667086	4,655314	4,643623	4,632011	4,620478
220	4,609022	4,597642	4,586337	4,575106	4,563949	4,552864	4,541849	4,530905	4,520030	4,509224

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,1 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,3518	1000,4067	1000,4442	1000,4648	1000,4690	1000,4574	1000,4304	1000,3886	1000,3324	1000,2621
10	1000,1782	1000,0810	999,9709	999,8483	999,7134	999,5665	999,4080	999,2381	999,0570	998,8651
20	998,6625	998,4494	998,2262	997,9929	997,7499	997,4972	997,2351	996,9637	996,6833	996,3939
30	996,0957	995,7889	995,4735	995,1499	994,8180	994,4780	994,1300	993,7742	993,4107	993,0395
40	992,6608	992,2747	991,8813	991,4806	991,0728	990,6580	990,2362	989,8076	989,3722	988,9301
50	988,4814	988,0261	987,5644	987,0962	986,6217	986,1410	985,6541	985,1610	984,6618	984,1567
60	983,6455	983,1285	982,6056	982,0770	981,5426	981,0025	980,4567	979,9054	979,3485	978,7862
70	978,2183	977,6451	977,0665	976,4826	975,8933	975,2988	974,6991	974,0943	973,4842	972,8691
80	972,2489	971,6236	970,9934	970,3581	969,7179	969,0728	968,4227	967,7678	967,1081	966,4435
90	965,7742	965,1000	964,4212	963,7376	963,0493	962,3563	961,6586	960,9563	960,2494	959,5379
100	958,8218	958,1011	957,3758	956,6460	955,9117	955,1729	954,4295	953,6817	952,9294	952,1726
110	951,4114	950,6457	949,8756	949,1011	948,3221	947,5388	946,7510	945,9589	945,1623	944,3614
120	943,5560	942,7464	941,9323	941,1139	940,2911	939,4639	938,6324	937,7965	936,9562	936,1116
130	935,2626	934,4093	933,5516	932,6895	931,8231	930,9523	930,0771	929,1975	928,3135	927,4251
140	926,5324	925,6352	924,7336	923,8276	922,9172	922,0023	921,0830	920,1592	919,2309	918,2982
150	917,3610	916,4192	915,4730	914,5222	913,5668	912,6069	911,6425	910,6734	909,6997	908,7214
160	907,7385	906,7508	905,7585	904,7615	903,7598	902,7533	901,7421	900,7261	899,7053	898,6796
170	897,6491	896,6136	895,5733	894,5281	893,4778	892,4226	891,3624	890,2971	889,2267	888,1512
180	887,0705	885,9847	884,8937	883,7974	882,6958	5,619401	5,601938	5,584683	5,567627	5,550761
190	5,534078	5,517571	5,501234	5,485060	5,469045	5,453184	5,437472	5,421906	5,406480	5,391192
200	5,376039	5,361016	5,346122	5,331353	5,316706	5,302179	5,287770	5,273476	5,259295	5,245225
210	5,231264	5,217410	5,203661	5,190015	5,176471	5,163027	5,149681	5,136431	5,123277	5,110216
220	5,097247	5,084369	5,071581	5,058880	5,046267	5,033739	5,021295	5,008934	4,996656	4,984458

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,2 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,4025	1000,4571	1000,4942	1000,5145	1000,5184	1000,5064	1000,4792	1000,4371	1000,3805	1000,3100
10	1000,2258	1000,1284	1000,0181	999,8952	999,7601	999,6131	999,4543	999,2842	999,1030	998,9109
20	998,7081	998,4949	998,2715	998,0381	997,7950	997,5422	997,2799	997,0084	996,7279	996,4383
30	996,1401	995,8331	995,5177	995,1940	994,8620	994,5220	994,1739	993,8181	993,4545	993,0832
40	992,7045	992,3183	991,9248	991,5241	991,1163	990,7015	990,2797	989,8511	989,4156	988,9735
50	988,5248	988,0695	987,6078	987,1396	986,6651	986,1844	985,6975	985,2044	984,7053	984,2001
60	983,6890	983,1720	982,6492	982,1206	981,5862	981,0461	980,5004	979,9492	979,3923	978,8300
70	978,2623	977,6891	977,1105	976,5266	975,9375	975,3431	974,7434	974,1386	973,5287	972,9136
80	972,2935	971,6683	971,0381	970,4030	969,7628	969,1178	968,4679	967,8131	967,1534	966,4890
90	965,8197	965,1457	964,4669	963,7834	963,0952	962,4024	961,7048	961,0027	960,2959	959,5845
100	958,8685	958,1479	957,4228	956,6932	955,9590	955,2203	954,4771	953,7294	952,9773	952,2206
110	951,4596	950,6941	949,9241	949,1497	948,3710	947,5878	946,8002	946,0082	945,2118	944,4111
120	943,6059	942,7964	941,9826	941,1643	940,3417	939,5147	938,6834	937,8477	937,0077	936,1633
130	935,3145	934,4614	933,6039	932,7420	931,8758	931,0052	930,1302	929,2509	928,3671	927,4790
140	926,5865	925,6896	924,7882	923,8825	922,9723	922,0577	921,1386	920,2151	919,2871	918,3546
150	917,4177	916,4762	915,5302	914,5797	913,6247	912,6651	911,7009	910,7321	909,7588	908,7808
160	907,7981	906,8108	905,8189	904,8222	903,8208	902,8147	901,8038	900,7881	899,7676	898,7423
170	897,7121	896,6771	895,6371	894,5922	893,5424	892,4876	891,4277	890,3628	889,2928	888,2177
180	887,1375	886,0521	884,9615	883,8656	882,7645	881,6581	880,5463	879,4291	6,124887	6,105465
190	6,086287	6,067344	6,048625	6,030119	6,011819	5,993717	5,975805	5,958077	5,940527	5,923150
200	5,905939	5,888892	5,872002	5,855267	5,838682	5,822243	5,805947	5,789791	5,773772	5,757887
210	5,742133	5,726508	5,711008	5,695632	5,680378	5,665242	5,650224	5,635320	5,620529	5,605850
220	5,591279	5,576816	5,562459	5,548205	5,534054	5,520004	5,506053	5,492199	5,478442	5,464780

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,4533	1000,5075	1000,5443	1000,5642	1000,5677	1000,5555	1000,5279	1000,4855	1000,4287	1000,3579
10	1000,2735	1000,1758	1000,0653	999,9422	999,8069	999,6596	999,5007	999,3304	999,1490	998,9567
20	998,7537	998,5404	998,3169	998,0833	997,8400	997,5871	997,3247	997,0531	996,7724	996,4828
30	996,1844	995,8774	995,5619	995,2381	994,9060	994,5659	994,2178	993,8619	993,4982	993,1269
40	992,7481	992,3619	991,9684	991,5677	991,1598	990,7450	990,3232	989,8945	989,4590	989,0169
50	988,5682	988,1129	987,6511	987,1830	986,7085	986,2278	985,7409	985,2478	984,7487	984,2436
60	983,7325	983,2155	982,6927	982,1641	981,6298	981,0898	980,5441	979,9929	979,4361	978,8739
70	978,3062	977,7330	977,1545	976,5707	975,9816	975,3873	974,7877	974,1830	973,5731	972,9581
80	972,3381	971,7130	971,0829	970,4478	969,8078	969,1628	968,5130	967,8583	967,1987	966,5344
90	965,8652	965,1913	964,5127	963,8293	963,1412	962,4485	961,7511	961,0490	960,3424	959,6311
100	958,9152	958,1948	957,4698	956,7403	956,0063	955,2677	954,5247	953,7771	953,0251	952,2687
110	951,5077	950,7424	949,9726	949,1984	948,4198	947,6368	946,8493	946,0575	945,2613	944,4608
120	943,6558	942,8465	942,0328	941,2147	940,3923	939,5656	938,7344	937,8989	937,0591	936,2149
130	935,3663	934,5134	933,6561	932,7945	931,9285	931,0581	930,1834	929,3043	928,4208	927,5329
140	926,6406	925,7439	924,8428	923,9373	923,0274	922,1130	921,1942	920,2710	919,3432	918,4110
150	917,4744	916,5332	915,5875	914,6373	913,6825	912,7232	911,7593	910,7909	909,8178	908,8401
160	907,8578	906,8708	905,8791	904,8828	903,8817	902,8759	901,8654	900,8501	899,8299	898,8050
170	897,7752	896,7405	895,7009	894,6564	893,6069	892,5525	891,4930	890,4285	889,3589	888,2842
180	887,2044	886,1194	885,0293	883,9338	882,8331	881,7271	880,6158	879,4991	878,3769	877,2493
190	876,1162	874,9776	6,606599	6,585472	6,564616	6,544018	6,523666	6,503551	6,483663	6,463993
200	6,444534	6,425278	6,406218	6,387348	6,368663	6,350158	6,331827	6,313666	6,295671	6,277837
210	6,260161	6,242639	6,225268	6,208044	6,190965	6,174028	6,157229	6,140567	6,124038	6,107640
220	6,091370	6,075227	6,059209	6,043312	6,027535	6,011876	5,996334	5,980905	5,965589	5,950384

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,5040	1000,5579	1000,5943	1000,6138	1000,6171	1000,6045	1000,5767	1000,5340	1000,4769	1000,4058
10	1000,3211	1000,2232	1000,1125	999,9891	999,8536	999,7061	999,5470	999,3765	999,1949	999,0025
20	998,7994	998,5859	998,3622	998,1285	997,8850	997,6320	997,3695	997,0978	996,8170	996,5273
30	996,2288	995,9217	995,6061	995,2822	994,9501	994,6098	994,2617	993,9057	993,5420	993,1706
40	992,7918	992,4055	992,0120	991,6112	991,2033	990,7884	990,3666	989,9379	989,5025	989,0603
50	988,6116	988,1563	987,6945	987,2264	986,7519	986,2712	985,7843	985,2913	984,7922	984,2870
60	983,7760	983,2590	982,7363	982,2077	981,6734	981,1334	980,5878	980,0366	979,4799	978,9177
70	978,3500	977,7770	977,1985	976,6148	976,0258	975,4315	974,8320	974,2273	973,6175	973,0026
80	972,3826	971,7576	971,1276	970,4926	969,8527	969,2078	968,5581	967,9035	967,2441	966,5798
90	965,9108	965,2370	964,5584	963,8752	963,1872	962,4946	961,7973	961,0954	960,3888	959,6777
100	958,9619	958,2416	957,5168	956,7874	956,0535	955,3151	954,5722	953,8248	953,0730	952,3167
110	951,5559	950,7907	950,0211	949,2470	948,4686	947,6857	946,8985	946,1068	945,3108	944,5104
120	943,7057	942,8965	942,0830	941,2652	940,4429	939,6164	938,7854	937,9501	937,1105	936,2665
130	935,4182	934,5655	933,7084	932,8470	931,9812	931,1110	930,2365	929,3576	928,4744	927,5867
140	926,6947	925,7982	924,8974	923,9921	923,0825	922,1684	921,2498	920,3268	919,3994	918,4674
150	917,5310	916,5901	915,6447	914,6948	913,7403	912,7813	911,8177	910,8495	909,8768	908,8994
160	907,9174	906,9307	905,9394	904,9434	903,9427	902,9372	901,9270	900,9120	899,8922	898,8676
170	897,8382	896,8038	895,7646	894,7205	893,6714	892,6173	891,5583	890,4942	889,4250	888,3507
180	887,2713	886,1867	885,0970	884,0020	882,9017	881,7962	880,6853	879,5690	878,4473	877,3202
190	876,1876	875,0494	873,9056	872,7563	871,6012	870,4405	7,081901	7,059116	7,036625	7,014414
200	6,992471	6,970785	6,949345	6,928143	6,907169	6,886417	6,865878	6,845547	6,825417	6,805483
210	6,785739	6,766180	6,746801	6,727599	6,708568	6,689706	6,671008	6,652471	6,634091	6,615865
220	6,597791	6,579865	6,562084	6,544446	6,526949	6,509588	6,492363	6,475271	6,458310	6,441477

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,5 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,5547	1000,6082	1000,6443	1000,6635	1000,6664	1000,6535	1000,6254	1000,5824	1000,5250	1000,4537
10	1000,3688	1000,2706	1000,1596	1000,0361	999,9003	999,7526	999,5933	999,4227	999,2409	999,0482
20	998,8450	998,6313	998,4075	998,1737	997,9301	997,6769	997,4143	997,1424	996,8615	996,5717
30	996,2731	995,9659	995,6503	995,3263	994,9941	994,6538	994,3056	993,9495	993,5857	993,2143
40	992,8354	992,4491	992,0555	991,6547	991,2468	990,8319	990,4100	989,9813	989,5458	989,1037
50	988,6549	988,1996	987,7379	987,2697	986,7953	986,3146	985,8277	985,3347	984,8356	984,3305
60	983,8195	983,3025	982,7798	982,2513	981,7170	981,1771	980,6315	980,0804	979,5237	978,9615
70	978,3939	977,8209	977,2425	976,6588	976,0699	975,4757	974,8762	974,2716	973,6619	973,0471
80	972,4272	971,8023	971,1724	970,5375	969,8976	969,2529	968,6032	967,9487	967,2894	966,6252
90	965,9563	965,2826	964,6041	963,9210	963,2332	962,5406	961,8435	961,1417	960,4353	959,7242
100	959,0086	958,2885	957,5638	956,8345	956,1008	955,3625	954,6197	953,8725	953,1208	952,3646
110	951,6040	950,8390	950,0695	949,2957	948,5174	947,7347	946,9476	946,1561	945,3603	944,5601
120	943,7555	942,9465	942,1332	941,3156	940,4935	939,6671	938,8364	938,0013	937,1619	936,3181
130	935,4700	934,6175	933,7606	932,8994	932,0339	931,1639	930,2897	929,4110	928,5280	927,6405
140	926,7487	925,8525	924,9519	924,0469	923,1375	922,2237	921,3054	920,3826	919,4555	918,5238
150	917,5877	916,6470	915,7019	914,7523	913,7981	912,8394	911,8761	910,9082	909,9358	908,9587
160	907,9770	906,9906	905,9996	905,0039	904,0036	902,9984	901,9886	900,9739	899,9545	898,9302
170	897,9011	896,8672	895,8283	894,7846	893,7359	892,6822	891,6235	890,5598	889,4910	888,4171
180	887,3381	886,2540	885,1647	884,0701	882,9703	881,8652	880,7547	879,6389	878,5177	877,3910
190	876,2589	875,1212	873,9779	872,8290	871,6745	870,5143	869,3483	868,1765	866,9988	865,8153
200	7,550535	7,526145	7,502070	7,478294	7,454805	7,431591	7,408642	7,385947	7,363499	7,341288
210	7,319307	7,297550	7,276010	7,254680	7,233555	7,212630	7,191900	7,171359	7,151004	7,130831
220	7,110835	7,091012	7,071360	7,051874	7,032551	7,013388	6,994383	6,975531	6,956830	6,938278

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,6 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1000,6054	1000,6585	1000,6942	1000,7131	1000,7157	1000,7025	1000,6741	1000,6308	1000,5732	1000,5016
10	1000,4164	1000,3180	1000,2068	1000,0830	999,9470	999,7992	999,6396	999,4688	999,2868	999,0940
20	998,8906	998,6768	998,4528	998,2188	997,9751	997,7218	997,4591	997,1871	996,9061	996,6162
30	996,3175	996,0102	995,6944	995,3703	995,0381	994,6977	994,3494	993,9933	993,6294	993,2580
40	992,8790	992,4927	992,0991	991,6982	991,2903	990,8753	990,4534	990,0247	989,5892	989,1471
50	988,6983	988,2430	987,7812	987,3131	986,8386	986,3579	985,8711	985,3781	984,8790	984,3739
60	983,8629	983,3460	982,8233	982,2948	981,7606	981,2207	980,6752	980,1241	979,5675	979,0053
70	978,4378	977,8648	977,2865	976,7029	976,1140	975,5198	974,9205	974,3160	973,7063	973,0916
80	972,4718	971,8469	971,2171	970,5823	969,9425	969,2978	968,6483	967,9939	967,3346	966,6706
90	966,0018	965,3282	964,6499	963,9668	963,2791	962,5867	961,8897	961,1880	960,4817	959,7708
100	959,0553	958,3353	957,6107	956,8816	956,1480	955,4099	954,6673	953,9202	953,1686	952,4126
110	951,6522	950,8873	950,1180	949,3443	948,5662	947,7836	946,9967	946,2054	945,4098	944,6097
120	943,8053	942,9965	942,1834	941,3659	940,5441	939,7179	938,8874	938,0525	937,2132	936,3697
130	935,5217	934,6695	933,8128	932,9518	932,0865	931,2168	930,3428	929,4643	928,5815	927,6943
140	926,8028	925,9068	925,0065	924,1017	923,1925	922,2789	921,3609	920,4384	919,5115	918,5801
150	917,6443	916,7039	915,7591	914,8097	913,8558	912,8974	911,9344	910,9669	909,9947	909,0179
160	908,0366	907,0505	906,0598	905,0645	904,0644	903,0596	902,0501	901,0358	900,0167	898,9928
170	897,9641	896,9305	895,8920	894,8486	893,8003	892,7470	891,6887	890,6254	889,5570	888,4835
180	887,4050	886,3212	885,2323	884,1382	883,0388	881,9341	880,8241	879,7088	878,5880	877,4618
190	876,3301	875,1929	874,0502	872,9018	871,7477	870,5880	869,4225	868,2512	867,0741	865,8911
200	864,7022	863,5072	8,065220	8,038573	8,012291	7,986355	7,960750	7,935461	7,910476	7,885782
210	7,861370	7,837228	7,813347	7,789720	7,766338	7,743194	7,720281	7,697593	7,675125	7,652869
220	7,630822	7,608978	7,587332	7,565881	7,544619	7,523543	7,502649	7,481933	7,461392	7,441022

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,6561	1000,7089	1000,7442	1000,7628	1000,7650	1000,7515	1000,7228	1000,6792	1000,6213	1000,5495
10	1000,4640	1000,3654	1000,2539	1000,1299	999,9937	999,8457	999,6859	999,5149	999,3328	999,1398
20	998,9362	998,7222	998,4981	998,2640	998,0201	997,7667	997,5038	997,2317	996,9506	996,6606
30	996,3618	996,0544	995,7386	995,4144	995,0820	994,7416	994,3933	994,0371	993,6732	993,3017
40	992,9227	992,5363	992,1426	991,7417	991,3338	990,9188	990,4969	990,0681	989,6326	989,1904
50	988,7416	988,2863	987,8246	987,3564	986,8820	986,4013	985,9144	985,4214	984,9224	984,4174
60	983,9064	983,3895	982,8668	982,3384	981,8042	981,2643	980,7188	980,1678	979,6112	979,0492
70	978,4816	977,9088	977,3305	976,7469	976,1581	975,5640	974,9647	974,3603	973,7507	973,1360
80	972,5163	971,8915	971,2618	970,6271	969,9874	969,3428	968,6934	968,0391	967,3799	966,7160
90	966,0473	965,3738	964,6956	964,0126	963,3250	962,6328	961,9358	961,2343	960,5281	959,8173
100	959,1020	958,3821	957,6577	956,9287	956,1952	955,4572	954,7148	953,9678	953,2164	952,4606
110	951,7003	950,9356	950,1664	949,3929	948,6149	947,8326	947,0458	946,2547	945,4592	944,6593
120	943,8551	943,0465	942,2336	941,4163	940,5946	939,7687	938,9383	938,1036	937,2646	936,4212
130	935,5735	934,7214	933,8650	933,0043	932,1391	931,2697	930,3958	929,5176	928,6351	927,7481
140	926,8568	925,9611	925,0610	924,1565	923,2475	922,3342	921,4164	920,4942	919,5676	918,6365
150	917,7009	916,7608	915,8162	914,8672	913,9136	912,9554	911,9927	911,0255	910,0536	909,0772
160	908,0961	907,1104	906,1200	905,1250	904,1252	903,1208	902,1116	901,0976	900,0789	899,0554
170	898,0270	896,9938	895,9556	894,9126	893,8647	892,8118	891,7539	890,6909	889,6230	888,5499
180	887,4717	886,3884	885,2999	884,2062	883,1073	882,0030	880,8935	879,7786	878,6583	877,5326
190	876,4014	875,2646	874,1223	872,9745	871,8209	870,6617	869,4967	868,3260	867,1494	865,9669
200	864,7785	863,5841	862,3837	861,1772	859,9645	8,551517	8,522956	8,494793	8,467008	8,439585
210	8,412507	8,385760	8,359332	8,333210	8,307383	8,281841	8,256575	8,231576	8,206836	8,182348
220	8,158104	8,134099	8,110326	8,086779	8,063452	8,040342	8,017442	7,994748	7,972255	7,949960

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,7068	1000,7592	1000,7942	1000,8124	1000,8143	1000,8005	1000,7715	1000,7276	1000,6695	1000,5973
10	1000,5116	1000,4128	1000,3011	1000,1768	1000,0404	999,8921	999,7322	999,5610	999,3787	999,1855
20	998,9818	998,7677	998,5434	998,3091	998,0651	997,8115	997,5486	997,2764	996,9951	996,7050
30	996,4061	996,0986	995,7827	995,4585	995,1260	994,7855	994,4371	994,0808	993,7169	993,3453
40	992,9663	992,5798	992,1861	991,7852	991,3772	990,9622	990,5403	990,1115	989,6760	989,2338
50	988,7850	988,3297	987,8679	987,3998	986,9253	986,4447	985,9578	985,4648	984,9658	984,4608
60	983,9498	983,4330	982,9103	982,3819	981,8477	981,3079	980,7625	980,2115	979,6550	979,0929
70	978,5255	977,9527	977,3745	976,7910	976,2022	975,6082	975,0090	974,4046	973,7951	973,1805
80	972,5608	971,9362	971,3065	970,6719	970,0323	969,3878	968,7384	968,0842	967,4252	966,7613
90	966,0927	965,4194	964,7413	964,0585	963,3710	962,6788	961,9820	961,2806	960,5745	959,8639
100	959,1487	958,4289	957,7046	956,9758	956,2424	955,5046	954,7623	954,0155	953,2642	952,5085
110	951,7484	950,9838	950,2148	949,4414	948,6637	947,8815	947,0949	946,3040	945,5086	944,7090
120	943,9049	943,0965	942,2837	941,4666	940,6452	939,8194	938,9892	938,1548	937,3159	936,4728
130	935,6252	934,7734	933,9172	933,0566	932,1917	931,3225	930,4489	929,5709	928,6886	927,8019
140	926,9108	926,0153	925,1155	924,2112	923,3025	922,3894	921,4719	920,5500	919,6236	918,6928
150	917,7574	916,8177	915,8734	914,9246	913,9713	913,0134	912,0510	911,0841	910,1125	909,1364
160	908,1556	907,1702	906,1802	905,1855	904,1861	903,1819	902,1731	901,1595	900,1411	899,1179
170	898,0899	897,0570	896,0193	894,9766	893,9290	892,8765	891,8190	890,7564	889,6889	888,6162
180	887,5385	886,4556	885,3675	884,2742	883,1757	882,0719	880,9628	879,8484	878,7285	877,6033
190	876,4725	875,3363	874,1945	873,0471	871,8941	870,7354	869,5709	868,4007	867,2246	866,0427
200	864,8549	863,6610	862,4612	861,2552	860,0431	858,8248	857,6003	856,3694	9,033879	9,003426
210	8,973403	8,943789	8,914565	8,885715	8,857223	8,829075	8,801257	8,773759	8,746569	8,719677
220	8,693073	8,666749	8,640698	8,614910	8,589380	8,564100	8,539064	8,514266	8,489701	8,465363

Приложение В. Плотность (кг/м³) как функция температуры при давлении 1,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,7575	1000,8095	1000,8441	1000,8620	1000,8636	1000,8495	1000,8202	1000,7760	1000,7176	1000,6452
10	1000,5592	1000,4601	1000,3482	1000,2237	1000,0871	999,9386	999,7785	999,6071	999,4246	999,2313
20	999,0274	998,8131	998,5886	998,3543	998,1101	997,8564	997,5933	997,3210	997,0397	996,7494
30	996,4504	996,1429	995,8268	995,5025	995,1700	994,8294	994,4809	994,1246	993,7606	993,3890
40	993,0099	992,6234	992,2296	991,8287	991,4207	991,0056	990,5837	990,1549	989,7193	989,2771
50	988,8283	988,3730	987,9112	987,4431	986,9687	986,4880	986,0011	985,5082	985,0092	984,5042
60	983,9932	983,4764	982,9538	982,4254	981,8913	981,3515	980,8061	980,2552	979,6987	979,1367
70	978,5693	977,9965	977,4184	976,8350	976,2463	975,6523	975,0532	974,4489	973,8394	973,2249
80	972,6054	971,9808	971,3512	970,7166	970,0771	969,4328	968,7835	968,1294	967,4704	966,8067
90	966,1382	965,4649	964,7869	964,1042	963,4169	962,7248	962,0281	961,3268	960,6209	959,9104
100	959,1953	958,4757	957,7515	957,0228	956,2896	955,5519	954,8098	954,0631	953,3120	952,5565
110	951,7965	951,0321	950,2632	949,4900	948,7124	947,9304	947,1440	946,3532	945,5581	944,7585
120	943,9547	943,1465	942,3339	941,5170	940,6957	939,8701	939,0402	938,2059	937,3672	936,5243
130	935,6770	934,8253	933,9693	933,1090	932,2443	931,3753	930,5019	929,6242	928,7421	927,8556
140	926,9648	926,0695	925,1699	924,2659	923,3575	922,4447	921,5274	920,6057	919,6796	918,7490
150	917,8140	916,8745	915,9305	914,9820	914,0289	913,0714	912,1093	911,1426	910,1714	909,1955
160	908,2151	907,2300	906,2403	905,2459	904,2468	903,2430	902,2345	901,2213	900,2032	899,1804
170	898,1527	897,1202	896,0828	895,0406	893,9934	892,9412	891,8841	890,8219	889,7548	888,6825
180	887,6052	886,5227	885,4350	884,3422	883,2441	882,1408	881,0321	879,9181	878,7987	877,6739
190	876,5437	875,4079	874,2666	873,1197	871,9672	870,8090	869,6450	868,4753	867,2998	866,1184
200	864,9311	863,7379	862,5386	861,3332	860,1217	858,9040	857,6800	856,4497	855,2131	853,9700
210	9,544869	9,512067	9,479751	9,447894	9,416476	9,385476	9,354876	9,324659	9,294811	9,265318
220	9,236167	9,207347	9,178846	9,150655	9,122763	9,095164	9,067848	9,040807	9,014035	8,987525

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1000,8081	1000,8598	1000,8941	1000,9116	1000,9129	1000,8985	1000,8688	1000,8244	1000,7657	1000,6930
10	1000,6068	1000,5075	1000,3953	1000,2706	1000,1338	999,9851	999,8248	999,6532	999,4705	999,2770
20	999,0729	998,8585	998,6339	998,3994	998,1551	997,9013	997,6381	997,3656	997,0842	996,7938
30	996,4947	996,1871	995,8710	995,5465	995,2139	994,8733	994,5247	994,1684	993,8043	993,4326
40	993,0535	992,6670	992,2732	991,8722	991,4641	991,0490	990,6270	990,1982	989,7627	989,3205
50	988,8717	988,4163	987,9546	987,4864	987,0120	986,5313	986,0445	985,5515	985,0526	984,5476
60	984,0367	983,5199	982,9973	982,4689	981,9349	981,3951	980,8498	980,2989	979,7424	979,1805
70	978,6132	978,0404	977,4624	976,8790	976,2903	975,6964	975,0974	974,4931	973,8838	973,2694
80	972,6499	972,0254	971,3959	970,7614	970,1220	969,4777	968,8285	968,1745	967,5157	966,8521
90	966,1836	965,5105	964,8326	964,1500	963,4628	962,7708	962,0743	961,3731	960,6673	959,9569
100	959,2420	958,5225	957,7984	957,0699	956,3368	955,5993	954,8572	954,1107	953,3598	952,6044
110	951,8445	951,0803	950,3116	949,5386	948,7611	947,9792	947,1930	946,4024	945,6075	944,8081
120	944,0044	943,1964	942,3840	941,5673	940,7462	939,9208	939,0911	938,2570	937,4185	936,5758
130	935,7287	934,8773	934,0215	933,1614	932,2969	931,4281	930,5550	929,6774	928,7956	927,9093
140	927,0187	926,1237	925,2244	924,3206	923,4124	922,4999	921,5829	920,6615	919,7356	918,8053
150	917,8705	916,9313	915,9876	915,0393	914,0866	913,1293	912,1675	911,2012	910,2302	909,2547
160	908,2746	907,2898	906,3004	905,3063	904,3076	903,3041	902,2959	901,2830	900,2653	899,2428
170	898,2155	897,1834	896,1464	895,1045	894,0576	893,0059	891,9491	890,8874	889,8206	888,7488
180	887,6718	886,5898	885,5025	884,4101	883,3125	882,2096	881,1013	879,9878	878,8689	877,7445
190	876,6148	875,4795	874,3386	873,1922	872,0402	870,8825	869,7191	868,5499	867,3749	866,1941
200	865,0073	863,8146	862,6159	861,4111	860,2002	858,9830	857,7597	856,5300	855,2940	854,0516
210	852,8027	851,5472	850,2851	10,020524	9,985865	9,951719	9,918061	9,884869	9,852121	9,819798
220	9,787883	9,756361	9,725216	9,694435	9,664006	9,633918	9,604160	9,574721	9,545593	9,516767

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,1 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1000,8588	1000,9101	1000,9440	1000,9612	1000,9622	1000,9474	1000,9175	1000,8728	1000,8138	1000,7409
10	1000,6544	1000,5548	1000,4424	1000,3175	1000,1805	1000,0316	999,8711	999,6993	999,5164	999,3227
20	999,1185	998,9039	998,6792	998,4445	998,2001	997,9461	997,6828	997,4102	997,1287	996,8382
30	996,5390	996,2313	995,9151	995,5906	995,2579	994,9172	994,5685	994,2121	993,8480	993,4763
40	993,0971	992,7105	992,3167	991,9156	991,5075	991,0924	990,6704	990,2416	989,8060	989,3638
50	988,9150	988,4596	987,9979	987,5297	987,0553	986,5747	986,0878	985,5949	985,0959	984,5910
60	984,0801	983,5633	983,0408	982,5124	981,9784	981,4387	980,8934	980,3425	979,7861	979,2243
70	978,6570	978,0843	977,5063	976,9230	976,3344	975,7406	975,1416	974,5374	973,9281	973,3138
80	972,6944	972,0699	971,4405	970,8062	970,1669	969,5227	968,8736	968,2197	967,5609	966,8974
90	966,2291	965,5560	964,8783	964,1958	963,5086	962,8168	962,1204	961,4193	960,7137	960,0034
100	959,2886	958,5692	957,8453	957,1169	956,3840	955,6466	954,9047	954,1583	953,4075	952,6523
110	951,8926	951,1285	950,3600	949,5871	948,8098	948,0281	947,2421	946,4516	945,6568	944,8577
120	944,0542	943,2463	942,4341	941,6176	940,7967	939,9715	939,1419	938,3080	937,4698	936,6273
130	935,7804	934,9292	934,0736	933,2137	932,3495	931,4809	930,6080	929,7307	928,8490	927,9630
140	927,0727	926,1779	925,2788	924,3753	923,4674	922,5550	921,6383	920,7171	919,7916	918,8615
150	917,9270	916,9881	916,0446	915,0967	914,1442	913,1872	912,2257	911,2597	910,2890	909,3138
160	908,3340	907,3495	906,3605	905,3667	904,3683	903,3652	902,3573	901,3447	900,3274	899,3053
170	898,2783	897,2465	896,2099	895,1683	894,1219	893,0705	892,0142	890,9528	889,8864	888,8150
180	887,7384	886,6568	885,5700	884,4780	883,3808	882,2783	881,1706	880,0575	878,9390	877,8151
190	876,6858	875,5510	874,4107	873,2647	872,1132	870,9560	869,7931	868,6245	867,4500	866,2697
200	865,0835	863,8913	862,6932	861,4889	860,2786	859,0621	857,8393	856,6103	855,3749	854,1331
210	852,8848	851,6300	850,3685	849,1004	847,8256	10,528598	10,491553	10,455078	10,419142	10,383720
220	10,348789	10,314326	10,280312	10,246728	10,213560	10,180790	10,148406	10,116395	10,084744	10,053442

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,2 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1000,9094	1000,9603	1000,9939	1001,0108	1001,0114	1000,9964	1000,9661	1000,9211	1000,8619	1000,7887
10	1000,7020	1000,6021	1000,4895	1000,3644	1000,2271	1000,0780	999,9173	999,7453	999,5623	999,3685
20	999,1641	998,9493	998,7244	998,4896	998,2451	997,9910	997,7275	997,4548	997,1732	996,8826
30	996,5833	996,2755	995,9592	995,6346	995,3018	994,9611	994,6123	994,2558	993,8916	993,5199
40	993,1406	992,7540	992,3601	991,9591	991,5510	991,1358	990,7138	990,2849	989,8494	989,4071
50	988,9583	988,5029	988,0412	987,5730	987,0986	986,6180	986,1312	985,6382	985,1393	984,6343
60	984,1235	983,6068	983,0842	982,5559	982,0219	981,4823	980,9370	980,3862	979,8298	979,2680
70	978,7008	978,1282	977,5502	976,9670	976,3784	975,7847	975,1858	974,5817	973,9725	973,3582
80	972,7389	972,1145	971,4852	970,8509	970,2117	969,5676	968,9186	968,2648	967,6061	966,9427
90	966,2745	965,6016	964,9239	964,2416	963,5545	962,8628	962,1665	961,4655	960,7600	960,0499
100	959,3352	958,6160	957,8922	957,1639	956,4311	955,6939	954,9521	954,2059	953,4553	952,7002
110	951,9406	951,1767	950,4084	949,6356	948,8585	948,0770	947,2911	946,5008	945,7062	944,9072
120	944,1039	943,2962	942,4842	941,6679	940,8472	940,0221	939,1928	938,3591	937,5211	936,6787
130	935,8321	934,9810	934,1257	933,2660	932,4020	931,5336	930,6609	929,7839	928,9025	928,0167
140	927,1266	926,2321	925,3332	924,4299	923,5223	922,6102	921,6937	920,7728	919,8475	918,9177
150	917,9835	917,0448	916,1016	915,1540	914,2018	913,2451	912,2839	911,3182	910,3478	909,3729
160	908,3934	907,4093	906,4205	905,4271	904,4290	903,4262	902,4187	901,4064	900,3894	899,3677
170	898,3411	897,3096	896,2734	895,2322	894,1861	893,1351	892,0791	891,0182	889,9522	888,8812
180	887,8050	886,7238	885,6374	884,5458	883,4491	882,3470	881,2397	880,1271	879,0091	877,8857
190	876,7568	875,6225	874,4826	873,3372	872,1862	871,0295	869,8671	868,6990	867,5251	866,3453
200	865,1596	863,9680	862,7704	861,5668	860,3570	859,1411	857,9189	856,6905	855,4557	854,2145
210	852,9669	851,7127	850,4519	849,1845	847,9103	846,6293	845,3414	844,0466	10,996624	10,957783
220	10,919536	10,881853	10,844707	10,808074	10,771933	10,736262	10,701044	10,666261	10,631898	10,597941

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,3 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1000,9600	1001,0106	1001,0438	1001,0603	1001,0607	1001,0453	1001,0148	1000,9695	1000,9099	1000,8365
10	1000,7495	1000,6494	1000,5366	1000,4112	1000,2738	1000,1245	999,9636	999,7914	999,6082	999,4142
20	999,2096	998,9947	998,7697	998,5347	998,2900	998,0358	997,7722	997,4994	997,2176	996,9270
30	996,6276	996,3196	996,0033	995,6786	995,3458	995,0049	994,6561	994,2996	993,9353	993,5635
40	993,1842	992,7975	992,4036	992,0025	991,5944	991,1792	990,7572	990,3283	989,8927	989,4504
50	989,0016	988,5462	988,0845	987,6163	987,1419	986,6613	986,1745	985,6816	985,1826	984,6777
60	984,1669	983,6502	983,1277	982,5994	982,0654	981,5258	980,9806	980,4298	979,8735	979,3118
70	978,7446	978,1720	977,5941	977,0109	976,4225	975,8288	975,2299	974,6259	974,0168	973,4026
80	972,7833	972,1591	971,5298	970,8956	970,2565	969,6125	968,9636	968,3099	967,6513	966,9880
90	966,3199	965,6471	964,9695	964,2873	963,6004	962,9088	962,2126	961,5118	960,8063	960,0964
100	959,3818	958,6627	957,9391	957,2109	956,4783	955,7411	954,9995	954,2535	953,5030	952,7480
110	951,9887	951,2249	950,4567	949,6841	948,9071	948,1258	947,3401	946,5500	945,7556	944,9568
120	944,1536	943,3461	942,5343	941,7181	940,8976	940,0728	939,2436	938,4101	937,5723	936,7302
130	935,8837	935,0329	934,1778	933,3183	932,4545	931,5864	930,7139	929,8371	928,9559	928,0704
140	927,1805	926,2862	925,3876	924,4845	923,5771	922,6653	921,7491	920,8285	919,9034	918,9739
150	918,0400	917,1015	916,1587	915,2113	914,2594	913,3030	912,3421	911,3766	910,4066	909,4320
160	908,4528	907,4690	906,4805	905,4874	904,4896	903,4872	902,4800	901,4681	900,4515	899,4300
170	898,4038	897,3727	896,3368	895,2960	894,2503	893,1997	892,1441	891,0835	890,0179	888,9473
180	887,8716	886,7908	885,7048	884,6137	883,5173	882,4157	881,3088	880,1966	879,0791	877,9561
190	876,8278	875,6939	874,5545	873,4096	872,2591	871,1029	869,9410	868,7734	867,6000	866,4208
200	865,2357	864,0446	862,8476	861,6445	860,4353	859,2200	857,9984	856,7706	855,5364	854,2959
210	853,0489	851,7954	850,5352	849,2685	847,9950	846,7147	845,4275	844,1334	842,8323	841,5240
220	11,500884	11,459649	11,419063	11,379091	11,339705	11,300878	11,262585	11,224804	11,187514	11,150697

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1001,0106	1001,0608	1001,0937	1001,1099	1001,1099	1001,0942	1001,0634	1001,0178	1000,9580	1000,8843
10	1000,7971	1000,6968	1000,5837	1000,4581	1000,3204	1000,1709	1000,0098	999,8374	999,6541	999,4599
20	999,2551	999,0401	998,8149	998,5798	998,3350	998,0806	997,8169	997,5440	997,2621	996,9713
30	996,6719	996,3638	996,0474	995,7226	995,3897	995,0488	994,6999	994,3433	993,9790	993,6071
40	993,2278	992,8411	992,4471	992,0460	991,6378	991,2226	990,8005	990,3716	989,9360	989,4937
50	989,0449	988,5895	988,1278	987,6596	987,1852	986,7046	986,2178	985,7249	985,2260	984,7211
60	984,2103	983,6936	983,1711	982,6429	982,1090	981,5694	981,0242	980,4735	979,9172	979,3555
70	978,7884	978,2159	977,6380	977,0549	976,4665	975,8729	975,2741	974,6702	974,0611	973,4470
80	972,8278	972,2036	971,5745	970,9404	970,3013	969,6574	969,0086	968,3550	967,6965	967,0333
90	966,3653	965,6926	965,0152	964,3330	963,6462	962,9548	962,2587	961,5580	960,8527	960,1428
100	959,4284	958,7094	957,9859	957,2579	956,5254	955,7884	955,0470	954,3010	953,5507	952,7959
110	952,0367	951,2731	950,5050	949,7326	948,9558	948,1746	947,3891	946,5992	945,8049	945,0063
120	944,2033	943,3960	942,5843	941,7684	940,9481	940,1234	939,2945	938,4612	937,6236	936,7816
130	935,9353	935,0848	934,2298	933,3706	932,5070	931,6391	930,7668	929,8902	929,0093	928,1240
140	927,2343	926,3403	925,4419	924,5392	923,6320	922,7204	921,8045	920,8841	919,9593	919,0301
150	918,0964	917,1582	916,2156	915,2685	914,3169	913,3608	912,4002	911,4350	910,4653	909,4910
160	908,5121	907,5286	906,5405	905,5477	904,5503	903,5481	902,5413	901,5298	900,5134	899,4924
170	898,4665	897,4358	896,4002	895,3598	894,3145	893,2642	892,2090	891,1488	890,0836	889,0134
180	887,9381	886,8577	885,7721	884,6814	883,5855	882,4844	881,3779	880,2662	879,1491	878,0266
190	876,8987	875,7653	874,6264	873,4820	872,3320	871,1763	870,0149	868,8478	867,6750	866,4963
200	865,3117	864,1212	862,9247	861,7222	860,5136	859,2988	858,0779	856,8507	855,6171	854,3772
210	853,1308	851,8780	850,6185	849,3524	848,0796	846,8000	845,5135	844,2201	842,9197	841,6122
220	840,2976	838,9756	837,6414	836,2949	834,9374	833,5694	832,1904	830,8000	829,3980	827,9841

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,5 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,0612	1001,1111	1001,1436	1001,1594	1001,1591	1001,1431	1001,1120	1001,0662	1001,0061	1000,9321
10	1000,8446	1000,7441	1000,6307	1000,5049	1000,3670	1000,2173	1000,0560	999,8835	999,6999	999,5056
20	999,3007	999,0854	998,8601	998,6249	998,3799	998,1254	997,8616	997,5886	997,3066	997,0157
30	996,7161	996,4080	996,0914	995,7666	995,4336	995,0926	994,7437	994,3870	994,0226	993,6507
40	993,2713	992,8846	992,4906	992,0894	991,6812	991,2660	990,8438	990,4149	989,9793	989,5370
50	989,0882	988,6328	988,1710	987,7029	987,2285	986,7479	986,2611	985,7682	985,2693	984,7644
60	984,2536	983,7370	983,2145	982,6864	982,1525	981,6129	981,0678	980,5171	979,9609	979,3992
70	978,8322	978,2597	977,6819	977,0988	976,5105	975,9170	975,3182	974,7144	974,1054	973,4914
80	972,8723	972,2482	971,6191	970,9851	970,3461	969,7023	969,0536	968,4001	967,7417	967,0786
90	966,4107	965,7381	965,0608	964,3787	963,6921	963,0007	962,3047	961,6042	960,8990	960,1893
100	959,4749	958,7561	958,0327	957,3049	956,5725	955,8357	955,0943	954,3486	953,5984	952,8437
110	952,0847	951,3212	950,5533	949,7811	949,0044	948,2234	947,4380	946,6483	945,8542	945,0558
120	944,2530	943,4459	942,6344	941,8186	940,9985	940,1740	939,3453	938,5122	937,6748	936,8330
130	935,9870	935,1366	934,2819	933,4228	932,5595	931,6918	930,8198	929,9434	929,0627	928,1776
140	927,2882	926,3944	925,4963	924,5937	923,6868	922,7755	921,8598	920,9397	920,0152	919,0862
150	918,1528	917,2149	916,2726	915,3258	914,3745	913,4187	912,4583	911,4935	910,5240	909,5500
160	908,5714	907,5883	906,6004	905,6080	904,6109	903,6091	902,6026	901,5914	900,5754	899,5547
170	898,5291	897,4988	896,4636	895,4235	894,3786	893,3287	892,2739	891,2141	890,1493	889,0795
180	888,0046	886,9246	885,8395	884,7492	883,6537	882,5530	881,4470	880,3357	879,2190	878,0970
190	876,9696	875,8367	874,6983	873,5543	872,4048	871,2496	870,0888	868,9222	867,7499	866,5717
200	865,3877	864,1977	863,0018	861,7998	860,5918	859,3777	858,1573	856,9307	855,6978	854,4585
210	853,2127	851,9605	850,7017	849,4362	848,1641	846,8852	845,5994	844,3067	843,0071	841,7003
220	840,3864	839,0653	837,7368	836,4009	12,506205	12,460120	12,414793	12,370186	12,326263	12,282992

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,6 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,1118	1001,1613	1001,1935	1001,2090	1001,2083	1001,1920	1001,1606	1001,1145	1001,0541	1000,9799
10	1000,8922	1000,7913	1000,6778	1000,5518	1000,4137	1000,2637	1000,1023	999,9295	999,7458	999,5512
20	999,3462	999,1308	998,9053	998,6699	998,4248	998,1702	997,9063	997,6332	997,3510	997,0600
30	996,7604	996,4521	996,1355	995,8106	995,4775	995,1364	994,7875	994,4307	994,0663	993,6943
40	993,3149	992,9281	992,5340	992,1328	991,7246	991,3093	990,8872	990,4583	990,0226	989,5803
50	989,1314	988,6761	988,2143	987,7462	987,2718	986,7911	986,3044	985,8115	985,3126	984,8078
60	984,2970	983,7804	983,2580	982,7298	982,1960	981,6564	981,1114	980,5607	980,0046	979,4429
70	978,8759	978,3035	977,7258	977,1428	976,5545	975,9610	975,3624	974,7586	974,1497	973,5357
80	972,9167	972,2927	971,6637	971,0298	970,3909	969,7472	969,0986	968,4451	967,7869	967,1239
90	966,4561	965,7836	965,1064	964,4245	963,7379	963,0467	962,3508	961,6503	960,9453	960,2357
100	959,5215	958,8028	958,0796	957,3518	956,6196	955,8829	955,1417	954,3961	953,6461	952,8916
110	952,1327	951,3693	950,6016	949,8295	949,0531	948,2722	947,4870	946,6974	945,9035	945,1052
120	944,3026	943,4957	942,6844	941,8688	941,0489	940,2246	939,3961	938,5632	937,7260	936,8844
130	936,0386	935,1884	934,3339	933,4751	932,6119	931,7445	930,8727	929,9965	929,1160	928,2312
140	927,3420	926,4485	925,5506	924,6483	923,7416	922,8306	921,9151	920,9953	920,0710	919,1423
150	918,2092	917,2716	916,3295	915,3830	914,4320	913,4765	912,5164	911,5518	910,5827	909,6090
160	908,6307	907,6479	906,6604	905,6682	904,6715	903,6700	902,6638	901,6529	900,6373	899,6169
170	898,5918	897,5618	896,5269	895,4873	894,4427	893,3932	892,3388	891,2794	890,2150	889,1455
180	888,0710	886,9914	885,9067	884,8169	883,7218	882,6215	881,5160	880,4051	879,2889	878,1674
190	877,0404	875,9080	874,7700	873,6266	872,4776	871,3229	870,1626	868,9965	867,8247	866,6471
200	865,4636	864,2742	863,0788	861,8774	860,6700	859,4564	858,2366	857,0106	855,7783	854,5397
210	853,2946	852,0430	850,7848	849,5200	848,2486	846,9704	845,6853	844,3933	843,0944	841,7883
220	840,4752	839,1548	837,8271	836,4920	835,1495	833,7993	832,4415	12,958359	12,910644	12,863700

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,7 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,1624	1001,2115	1001,2433	1001,2585	1001,2575	1001,2409	1001,2092	1001,1628	1001,1021	1001,0276
10	1000,9397	1000,8386	1000,7248	1000,5986	1000,4603	1000,3101	1000,1485	999,9755	999,7916	999,5969
20	999,3917	999,1762	998,9505	998,7150	998,4698	998,2150	997,9509	997,6777	997,3955	997,1044
30	996,8046	996,4963	996,1796	995,8546	995,5214	995,1803	994,8312	994,4744	994,1099	993,7379
40	993,3584	992,9716	992,5775	992,1762	991,7679	991,3527	990,9305	990,5016	990,0659	989,6236
50	989,1747	988,7193	988,2575	987,7894	987,3150	986,8344	986,3476	985,8548	985,3559	984,8511
60	984,3404	983,8238	983,3014	982,7733	982,2394	981,7000	981,1549	980,6043	980,0482	979,4867
70	978,9197	978,3473	977,7697	977,1867	976,5985	976,0051	975,4065	974,8028	974,1940	973,5801
80	972,9611	972,3372	971,7083	971,0745	970,4357	969,7920	969,1435	968,4902	967,8321	967,1691
90	966,5015	965,8291	965,1520	964,4702	963,7837	963,0926	962,3969	961,6965	960,9916	960,2821
100	959,5681	958,8495	958,1264	957,3988	956,6667	955,9301	955,1891	954,4436	953,6937	952,9394
110	952,1806	951,4175	950,6499	949,8780	949,1017	948,3210	947,5359	946,7465	945,9528	945,1547
120	944,3523	943,5455	942,7344	941,9190	941,0993	940,2752	939,4468	938,6141	937,7771	936,9358
130	936,0902	935,2402	934,3859	933,5273	932,6644	931,7971	930,9256	930,0496	929,1694	928,2848
140	927,3958	926,5025	925,6049	924,7028	923,7964	922,8856	921,9704	921,0508	920,1268	919,1984
150	918,2655	917,3282	916,3864	915,4402	914,4895	913,5342	912,5745	911,6102	910,6414	909,6680
160	908,6900	907,7075	906,7203	905,7285	904,7320	903,7309	902,7250	901,7145	900,6992	899,6792
170	898,6544	897,6247	896,5903	895,5509	894,5067	893,4576	892,4036	891,3446	890,2806	889,2115
180	888,1374	887,0583	885,9740	884,8845	883,7899	882,6900	881,5849	880,4745	879,3588	878,2377
190	877,1112	875,9792	874,8418	873,6988	872,5503	871,3961	870,2363	869,0708	867,8995	866,7224
200	865,5394	864,3506	863,1558	861,9550	860,7481	859,5351	858,3159	857,0905	855,8588	854,6208
210	853,3763	852,1254	850,8679	849,6038	848,3330	847,0554	845,7711	844,4798	843,1816	841,8763
220	840,5639	839,2443	837,9173	836,5831	835,2413	833,8920	832,5350	831,1703	829,7977	828,4200

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,8 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,2130	1001,2617	1001,2932	1001,3080	1001,3067	1001,2898	1001,2578	1001,2111	1001,1502	1001,0754
10	1000,9872	1000,8859	1000,7719	1000,6454	1000,5069	1000,3565	1000,1947	1000,0216	999,8374	999,6426
20	999,4372	999,2215	998,9957	998,7600	998,5147	998,2598	997,9956	997,7223	997,4399	997,1487
30	996,8488	996,5404	996,2236	995,8985	995,5653	995,2241	994,8750	994,5181	994,1536	993,7815
40	993,4019	993,0150	992,6209	992,2196	991,8113	991,3960	990,9738	990,5449	990,1092	989,6668
50	989,2179	988,7626	988,3008	987,8327	987,3583	986,8777	986,3909	985,8981	985,3992	984,8944
60	984,3837	983,8671	983,3448	982,8167	982,2829	981,7435	981,1985	980,6479	980,0919	979,5303
70	978,9634	978,3911	977,8135	977,2306	976,6425	976,0492	975,4506	974,8470	974,2382	973,6244
80	973,0056	972,3817	971,7529	971,1191	970,4805	969,8369	969,1885	968,5353	967,8772	967,2144
90	966,5468	965,8745	965,1975	964,5158	963,8295	963,1385	962,4429	961,7427	961,0379	960,3285
100	959,6146	958,8961	958,1732	957,4457	956,7138	955,9773	955,2365	954,4911	953,7414	952,9872
110	952,2286	951,4656	950,6982	949,9264	949,1503	948,3697	947,5849	946,7956	946,0021	945,2042
120	944,4019	943,5953	942,7844	941,9692	941,1496	940,3258	939,4976	938,6651	937,8283	936,9872
130	936,1417	935,2920	934,4379	933,5795	932,7168	931,8498	930,9784	930,1027	929,2227	928,3383
140	927,4496	926,5566	925,6591	924,7574	923,8512	922,9407	922,0257	921,1064	920,1826	919,2545
150	918,3219	917,3848	916,4433	915,4974	914,5469	913,5920	912,6325	911,6685	910,7000	909,7269
160	908,7493	907,7670	906,7802	905,7887	904,7925	903,7917	902,7862	901,7760	900,7611	899,7414
170	898,7169	897,6876	896,6535	895,6146	894,5708	893,5220	892,4684	891,4097	890,3461	889,2775
180	888,2038	887,1250	886,0412	884,9521	883,8579	882,7585	881,6538	880,5439	879,4286	878,3080
190	877,1819	876,0505	874,9135	873,7710	872,6230	871,4693	870,3100	869,1450	867,9742	866,7977
200	865,6153	864,4270	863,2327	862,0325	860,8262	859,6138	858,3952	857,1704	855,9393	854,7019
210	853,4580	852,2077	850,9509	849,6874	848,4173	847,1405	845,8568	844,5663	843,2687	841,9642
220	840,6525	839,3337	838,0075	836,6740	835,3330	833,9845	832,6284	831,2645	829,8928	828,5132

Приложение В. Плотность (кг/м³) как функция температуры при давлении 2,9 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,2635	1001,3119	1001,3430	1001,3575	1001,3559	1001,3387	1001,3064	1001,2594	1001,1982	1001,1231
10	1001,0347	1000,9331	1000,8189	1000,6922	1000,5535	1000,4029	1000,2409	1000,0676	999,8833	999,6882
20	999,4827	999,2668	999,0409	998,8051	998,5596	998,3046	998,0403	997,7668	997,4843	997,1930
30	996,8931	996,5846	996,2677	995,9425	995,6092	995,2679	994,9187	994,5618	994,1972	993,8250
40	993,4454	993,0585	992,6643	992,2630	991,8547	991,4393	991,0171	990,5881	990,1524	989,7101
50	989,2612	988,8058	988,3440	987,8759	987,4015	986,9209	986,4342	985,9414	985,4425	984,9377
60	984,4270	983,9105	983,3882	982,8601	982,3264	981,7870	981,2420	980,6915	980,1355	979,5740
70	979,0072	978,4349	977,8574	977,2746	976,6865	976,0932	975,4948	974,8912	974,2825	973,6688
80	973,0500	972,4262	971,7975	971,1638	970,5252	969,8818	969,2334	968,5803	967,9224	967,2596
90	966,5922	965,9200	965,2431	964,5615	963,8753	963,1844	962,4889	961,7888	961,0841	960,3749
100	959,6611	958,9428	958,2200	957,4926	956,7608	956,0245	955,2838	954,5386	953,7890	953,0350
110	952,2765	951,5137	950,7464	949,9748	949,1988	948,4185	947,6338	946,8447	946,0513	945,2536
120	944,4515	943,6451	942,8344	942,0194	941,2000	940,3763	939,5483	938,7160	937,8794	937,0385
130	936,1933	935,3437	934,4899	933,6317	932,7692	931,9024	931,0313	930,1558	929,2760	928,3919
140	927,5034	926,6106	925,7134	924,8119	923,9059	922,9957	922,0810	921,1619	920,2384	919,3105
150	918,3782	917,4414	916,5002	915,5545	914,6043	913,6497	912,6905	911,7268	910,7586	909,7858
160	908,8085	907,8265	906,8400	905,8488	904,8530	903,8525	902,8474	901,8375	900,8229	899,8036
170	898,7795	897,7505	896,7168	895,6782	894,6348	893,5864	892,5331	891,4749	890,4117	889,3434
180	888,2701	887,1918	886,1083	885,0197	883,9259	882,8270	881,7227	880,6132	879,4984	878,3782
190	877,2526	876,1216	874,9852	873,8432	872,6956	871,5424	870,3836	869,2191	868,0489	866,8729
200	865,6910	864,5033	863,3096	862,1099	860,9042	859,6923	858,4744	857,2502	856,0197	854,7829
210	853,5397	852,2900	851,0338	849,7710	848,5016	847,2254	845,9425	844,6526	843,3558	842,0520
220	840,7411	839,4230	838,0976	836,7649	835,4247	834,0770	832,7217	831,3587	829,9878	828,6091

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,0 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,3140	1001,3621	1001,3928	1001,4070	1001,4051	1001,3875	1001,3549	1001,3077	1001,2462	1001,1709
10	1001,0822	1000,9804	1000,8659	1000,7390	1000,6000	1000,4493	1000,2870	1000,1136	999,9291	999,7339
20	999,5282	999,3122	999,0861	998,8501	998,6045	998,3494	998,0849	997,8113	997,5288	997,2374
30	996,9373	996,6287	996,3117	995,9864	995,6531	995,3117	994,9625	994,6054	994,2408	993,8686
40	993,4889	993,1020	992,7078	992,3064	991,8980	991,4827	991,0604	990,6314	990,1957	989,7533
50	989,3044	988,8491	988,3873	987,9191	987,4448	986,9642	986,4774	985,9846	985,4858	984,9810
60	984,4704	983,9539	983,4316	982,9035	982,3698	981,8305	981,2855	980,7351	980,1791	979,6177
70	979,0509	978,4787	977,9012	977,3185	976,7305	976,1372	975,5389	974,9354	974,3267	973,7131
80	973,0944	972,4707	971,8420	971,2085	970,5700	969,9266	969,2784	968,6253	967,9675	967,3049
90	966,6375	965,9654	965,2886	964,6072	963,9210	963,2303	962,5349	961,8349	961,1304	960,4213
100	959,7076	958,9894	958,2667	957,5395	956,8079	956,0717	955,3311	954,5861	953,8366	953,0827
110	952,3245	951,5618	950,7947	950,0232	949,2474	948,4672	947,6827	946,8938	946,1006	945,3030
120	944,5011	943,6949	942,8844	942,0695	941,2503	940,4268	939,5991	938,7670	937,9305	937,0898
130	936,2448	935,3955	934,5418	933,6839	932,8216	931,9550	931,0841	930,2089	929,3293	928,4454
140	927,5572	926,6646	925,7676	924,8663	923,9607	923,0506	922,1362	921,2174	920,2942	919,3665
150	918,4345	917,4980	916,5570	915,6116	914,6617	913,7074	912,7485	911,7851	910,8172	909,8447
160	908,8677	907,8860	906,8998	905,9090	904,9135	903,9133	902,9085	901,8990	900,8847	899,8657
170	898,8420	897,8134	896,7800	895,7418	894,6987	893,6507	892,5978	891,5400	890,4772	889,4093
180	888,3364	887,2585	886,1754	885,0873	883,9939	882,8954	881,7916	880,6825	879,5681	878,4484
190	877,3233	876,1928	875,0568	873,9153	872,7682	871,6155	870,4572	869,2933	868,1235	866,9480
200	865,7667	864,5795	863,3864	862,1873	860,9821	859,7709	858,5535	857,3299	856,1000	854,8638
210	853,6213	852,3722	851,1167	849,8546	848,5858	847,3103	846,0280	844,7389	843,4428	842,1397
220	840,8296	839,5122	838,1876	836,8557	835,5163	834,1694	832,8149	831,4527	830,0827	828,7049

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,1 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,3646	1001,4122	1001,4427	1001,4565	1001,4542	1001,4364	1001,4035	1001,3559	1001,2942	1001,2186
10	1001,1296	1001,0276	1000,9129	1000,7858	1000,6466	1000,4957	1000,3332	1000,1595	999,9749	999,7795
20	999,5736	999,3575	999,1312	998,8951	998,6494	998,3941	998,1296	997,8558	997,5732	997,2817
30	996,9815	996,6728	996,3557	996,0304	995,6969	995,3555	995,0062	994,6491	994,2844	993,9121
40	993,5324	993,1454	992,7512	992,3498	991,9414	991,5260	991,1037	990,6747	990,2389	989,7966
50	989,3477	988,8923	988,4305	987,9624	987,4880	987,0074	986,5207	986,0279	985,5291	985,0243
60	984,5137	983,9972	983,4749	982,9469	982,4133	981,8740	981,3291	980,7786	980,2227	979,6614
70	979,0946	978,5225	977,9451	977,3624	976,7744	976,1813	975,5830	974,9795	974,3710	973,7574
80	973,1388	972,5152	971,8866	971,2531	970,6147	969,9714	969,3233	968,6703	968,0126	967,3501
90	966,6828	966,0108	965,3342	964,6528	963,9668	963,2762	962,5809	961,8811	961,1766	960,4676
100	959,7541	959,0361	958,3135	957,5864	956,8549	956,1189	955,3785	954,6336	953,8842	953,1305
110	952,3724	951,6098	950,8429	950,0716	949,2960	948,5159	947,7316	946,9428	946,1498	945,3524
120	944,5507	943,7447	942,9343	942,1196	941,3007	940,4774	939,6498	938,8179	937,9816	937,1411
130	936,2963	935,4472	934,5937	933,7360	932,8740	932,0076	931,1369	930,2619	929,3826	928,4989
140	927,6109	926,7185	925,8218	924,9208	924,0154	923,1056	922,1914	921,2729	920,3499	919,4225
150	918,4907	917,5545	916,6139	915,6687	914,7191	913,7650	912,8065	911,8434	910,8757	909,9036
160	908,9268	907,9455	906,9596	905,9691	904,9739	903,9741	902,9696	901,9604	900,9465	899,9278
170	898,9044	897,8762	896,8432	895,8054	894,7626	893,7150	892,6625	891,6051	890,5426	889,4752
180	888,4027	887,3252	886,2425	885,1548	884,0618	882,9637	881,8604	880,7518	879,6378	878,5186
190	877,3939	876,2639	875,1283	873,9873	872,8407	871,6886	870,5308	869,3673	868,1981	867,0232
200	865,8424	864,6557	863,4632	862,2646	861,0600	859,8494	858,6326	857,4096	856,1803	854,9447
210	853,7028	852,4544	851,1995	849,9381	848,6700	847,3951	846,1136	844,8251	843,5298	842,2274
220	840,9180	839,6014	838,2775	836,9464	835,6078	834,2617	832,9080	831,5467	830,1776	828,8006

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,2 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,4151	1001,4624	1001,4925	1001,5059	1001,5034	1001,4852	1001,4520	1001,4042	1001,3421	1001,2663
10	1001,1771	1001,0749	1000,9599	1000,8326	1000,6932	1000,5420	1000,3794	1000,2055	1000,0207	999,8251
20	999,6191	999,4028	999,1764	998,9402	998,6943	998,4389	998,1742	997,9004	997,6176	997,3260
30	997,0257	996,7169	996,3997	996,0743	995,7408	995,3993	995,0499	994,6928	994,3280	993,9557
40	993,5759	993,1889	992,7946	992,3932	991,9847	991,5693	991,1470	990,7179	990,2822	989,8398
50	989,3909	988,9355	988,4737	988,0056	987,5312	987,0506	986,5639	986,0711	985,5724	985,0676
60	984,5570	984,0405	983,5183	982,9903	982,4567	981,9174	981,3726	980,8222	980,2663	979,7050
70	979,1383	978,5663	977,9889	977,4062	976,8184	976,2253	975,6270	975,0237	974,4152	973,8017
80	973,1832	972,5596	971,9312	971,2977	970,6594	970,0162	969,3682	968,7153	968,0577	967,3953
90	966,7281	966,0563	965,3797	964,6985	964,0126	963,3220	962,6269	961,9272	961,2229	960,5140
100	959,8006	959,0827	958,3602	957,6333	956,9019	956,1661	955,4258	954,6810	953,9318	953,1782
110	952,4203	951,6579	950,8911	950,1200	949,3445	948,5646	947,7804	946,9919	946,1990	945,4018
120	944,6003	943,7944	942,9842	942,1697	941,3510	940,5279	939,7005	938,8687	938,0327	937,1924
130	936,3478	935,4989	934,6457	933,7881	932,9263	932,0601	931,1897	930,3149	929,4358	928,5524
140	927,6646	926,7725	925,8760	924,9752	924,0701	923,1605	922,2466	921,3283	920,4056	919,4785
150	918,5470	917,6110	916,6706	915,7258	914,7765	913,8227	912,8644	911,9016	910,9343	909,9624
160	908,9860	908,0050	907,0194	906,0292	905,0343	904,0348	903,0307	902,0218	901,0082	899,9899
170	898,9669	897,9390	896,9064	895,8689	894,8265	893,7793	892,7272	891,6701	890,6080	889,5410
180	888,4689	887,3918	886,3096	885,2222	884,1297	883,0321	881,9291	880,8210	879,7075	878,5887
190	877,4645	876,3349	875,1999	874,0593	872,9132	871,7616	870,6043	869,4413	868,2727	867,0982
200	865,9180	864,7319	863,5399	862,3419	861,1379	859,9278	858,7116	857,4892	856,2605	855,0256
210	853,7843	852,5365	851,2823	850,0215	848,7540	847,4799	846,1990	844,9113	843,6166	842,3150
220	841,0063	839,6905	838,3674	837,0370	835,6992	834,3539	833,0011	831,6406	830,2723	828,8962

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1001,4656	1001,5125	1001,5423	1001,5554	1001,5525	1001,5341	1001,5005	1001,4524	1001,3901	1001,3140
10	1001,2246	1001,1221	1001,0069	1000,8793	1000,7397	1000,5884	1000,4255	1000,2515	1000,0665	999,8707
20	999,6645	999,4481	999,2215	998,9852	998,7391	998,4836	998,2188	997,9449	997,6620	997,3702
30	997,0699	996,7610	996,4437	996,1182	995,7846	995,4431	995,0936	994,7364	994,3716	993,9992
40	993,6194	993,2323	992,8380	992,4365	992,0280	991,6126	991,1903	990,7612	990,3254	989,8830
50	989,4341	988,9787	988,5169	988,0488	987,5744	987,0938	986,6071	986,1144	985,6156	985,1109
60	984,6003	984,0839	983,5617	983,0337	982,5001	981,9609	981,4161	980,8658	980,3099	979,7487
70	979,1820	978,6100	978,0327	977,4501	976,8623	976,2693	975,6711	975,0678	974,4594	973,8460
80	973,2275	972,6041	971,9757	971,3424	970,7041	970,0610	969,4131	968,7603	968,1028	967,4405
90	966,7734	966,1017	965,4252	964,7441	964,0583	963,3679	962,6729	961,9733	961,2691	960,5603
100	959,8471	959,1293	958,4070	957,6802	956,9489	956,2132	955,4730	954,7284	953,9794	953,2260
110	952,4681	951,7059	950,9393	950,1683	949,3930	948,6133	947,8293	947,0409	946,2482	945,4512
120	944,6498	943,8441	943,0341	942,2198	941,4012	940,5783	939,7511	938,9196	938,0838	937,2437
130	936,3993	935,5506	934,6976	933,8402	932,9786	932,1127	931,2425	930,3679	929,4890	928,6058
140	927,7183	926,8264	925,9302	925,0296	924,1247	923,2154	922,3018	921,3837	920,4613	919,5345
150	918,6032	917,6675	916,7274	915,7828	914,8338	913,8803	912,9223	911,9598	910,9928	910,0212
160	909,0451	908,0644	907,0791	906,0892	905,0947	904,0955	903,0917	902,0832	901,0700	900,0520
170	899,0293	898,0018	896,9695	895,9324	894,8904	893,8435	892,7918	891,7351	890,6734	889,6068
180	888,5351	887,4584	886,3766	885,2897	884,1976	883,1003	881,9979	880,8901	879,7771	878,6588
190	877,5350	876,4059	875,2713	874,1313	872,9857	871,8345	870,6778	869,5153	868,3472	867,1733
200	865,9936	864,8080	863,6165	862,4191	861,2157	860,0061	858,7905	857,5687	856,3407	855,1063
210	853,8657	852,6185	851,3650	850,1048	848,8380	847,5646	846,2844	844,9974	843,7034	842,4025
220	841,0946	839,7795	838,4572	837,1276	835,7906	834,4461	833,0941	831,7344	830,3670	828,9917

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,4 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,5161	1001,5626	1001,5920	1001,6049	1001,6016	1001,5829	1001,5491	1001,5007	1001,4381	1001,3617
10	1001,2720	1001,1693	1001,0539	1000,9261	1000,7863	1000,6347	1000,4717	1000,2974	1000,1123	999,9164
20	999,7100	999,4934	999,2667	999,0302	998,7840	998,5283	998,2634	997,9894	997,7063	997,4145
30	997,1141	996,8051	996,4877	996,1622	995,8285	995,4868	995,1373	994,7800	994,4151	994,0427
40	993,6629	993,2757	992,8814	992,4799	992,0713	991,6559	991,2335	990,8044	990,3686	989,9262
50	989,4773	989,0219	988,5601	988,0920	987,6176	987,1370	986,6504	986,1576	985,6589	985,1542
60	984,6436	984,1272	983,6050	983,0771	982,5435	982,0044	981,4596	980,9093	980,3535	979,7923
70	979,2257	978,6538	978,0765	977,4940	976,9062	976,3133	975,7152	975,1119	974,5036	973,8903
80	973,2719	972,6485	972,0202	971,3870	970,7488	970,1058	969,4580	968,8053	968,1479	967,4857
90	966,8187	966,1471	965,4707	964,7897	964,1040	963,4137	962,7188	962,0193	961,3153	960,6067
100	959,8935	959,1759	958,4537	957,7270	956,9959	956,2603	955,5203	954,7759	954,0270	953,2737
110	952,5160	951,7539	950,9875	950,2167	949,4415	948,6620	947,8781	947,0899	946,2974	945,5005
120	944,6993	943,8938	943,0840	942,2699	941,4515	940,6288	939,8018	938,9705	938,1349	937,2949
130	936,4507	935,6022	934,7494	933,8923	933,0309	932,1652	931,2952	930,4209	929,5422	928,6593
140	927,7720	926,8803	925,9844	925,0840	924,1794	923,2703	922,3569	921,4391	920,5170	919,5904
150	918,6594	917,7240	916,7842	915,8399	914,8911	913,9379	912,9802	912,0180	911,0512	910,0800
160	909,1042	908,1238	907,1388	906,1492	905,1550	904,1562	903,1527	902,1445	901,1316	900,1140
170	899,0917	898,0645	897,0326	895,9958	894,9542	893,9078	892,8564	891,8001	890,7388	889,6725
180	888,6013	887,5250	886,4436	885,3571	884,2654	883,1686	882,0665	880,9593	879,8467	878,7288
190	877,6055	876,4769	875,3428	874,2032	873,0581	871,9075	870,7512	869,5893	868,4216	867,2482
200	866,0691	864,8840	863,6931	862,4963	861,2934	860,0845	858,8694	857,6482	856,4208	855,1871
210	853,9470	852,7005	851,4476	850,1881	848,9220	847,6492	846,3697	845,0834	843,7902	842,4900
220	841,1828	839,8684	838,5469	837,2180	835,8818	834,5382	833,1870	831,8281	830,4615	829,0871

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,5 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,5666	1001,6128	1001,6418	1001,6543	1001,6507	1001,6317	1001,5976	1001,5489	1001,4860	1001,4094
10	1001,3195	1001,2165	1001,1008	1000,9728	1000,8328	1000,6810	1000,5178	1000,3434	1000,1580	999,9620
20	999,7554	999,5386	999,3118	999,0751	998,8288	998,5731	998,3080	998,0338	997,7507	997,4588
30	997,1582	996,8492	996,5317	996,2061	995,8723	995,5306	995,1810	994,8237	994,4587	994,0862
40	993,7063	993,3192	992,9247	992,5232	992,1146	991,6991	991,2768	990,8477	990,4119	989,9694
50	989,5205	989,0651	988,6033	988,1352	987,6608	987,1802	986,6936	986,2008	985,7021	985,1974
60	984,6869	984,1705	983,6484	983,1205	982,5869	982,0478	981,5031	980,9528	980,3971	979,8359
70	979,2694	978,6975	978,1203	977,5378	976,9501	976,3573	975,7592	975,1561	974,5478	973,9345
80	973,3162	972,6930	972,0647	971,4316	970,7935	970,1506	969,5029	968,8503	968,1929	967,5308
90	966,8640	966,1924	965,5162	964,8353	964,1497	963,4596	962,7648	962,0654	961,3615	960,6530
100	959,9400	959,2224	958,5004	957,7739	957,0429	956,3075	955,5676	954,8233	954,0745	953,3214
110	952,5639	951,8020	951,0357	950,2650	949,4900	948,7106	947,9269	947,1389	946,3465	945,5499
120	944,7489	943,9435	943,1339	942,3200	941,5018	940,6792	939,8524	939,0213	938,1859	937,3462
130	936,5022	935,6539	934,8013	933,9444	933,0832	932,2177	931,3479	930,4738	929,5954	928,7127
140	927,8256	926,9342	926,0385	925,1384	924,2340	923,3252	922,4121	921,4945	920,5726	919,6463
150	918,7156	917,7805	916,8409	915,8969	914,9484	913,9955	913,0380	912,0761	911,1097	910,1387
160	909,1632	908,1832	907,1985	906,2092	905,2154	904,2169	903,2137	902,2058	901,1933	900,1760
170	899,1540	898,1272	897,0957	896,0593	895,0180	893,9719	892,9209	891,8650	890,8041	889,7383
180	888,6674	887,5915	886,5105	885,4244	884,3332	883,2368	882,1352	881,0283	879,9162	878,7988
190	877,6760	876,5478	875,4142	874,2751	873,1305	871,9803	870,8245	869,6631	868,4960	867,3232
200	866,1445	864,9600	863,7697	862,5734	861,3711	860,1627	858,9483	857,7277	856,5008	855,2677
210	854,0283	852,7824	851,5301	850,2713	849,0059	847,7338	846,4550	845,1693	843,8768	842,5774
220	841,2709	839,9573	838,6365	837,3084	835,9730	834,6302	833,2798	831,9217	830,5560	829,1824

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,6 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,6171	1001,6629	1001,6916	1001,7037	1001,6998	1001,6805	1001,6461	1001,5971	1001,5340	1001,4571
10	1001,3669	1001,2637	1001,1478	1001,0196	1000,8793	1000,7274	1000,5639	1000,3893	1000,2038	1000,0075
20	999,8008	999,5839	999,3569	999,1201	998,8737	998,6178	998,3526	998,0783	997,7951	997,5031
30	997,2024	996,8932	996,5757	996,2500	995,9161	995,5743	995,2247	994,8673	994,5023	994,1297
40	993,7498	993,3626	992,9681	992,5665	992,1579	991,7424	991,3200	990,8909	990,4551	990,0126
50	989,5637	989,1083	988,6465	988,1783	987,7040	987,2234	986,7368	986,2440	985,7453	985,2407
60	984,7302	984,2138	983,6917	983,1638	982,6303	982,0912	981,5465	980,9963	980,4407	979,8796
70	979,3131	978,7412	978,1641	977,5817	976,9940	976,4012	975,8033	975,2002	974,5920	973,9788
80	973,3606	972,7374	972,1092	971,4762	970,8382	970,1954	969,5477	968,8953	968,2380	967,5760
90	966,9093	966,2378	965,5617	964,8809	964,1954	963,5054	962,8107	962,1115	961,4076	960,6993
100	959,9864	959,2690	958,5471	957,8207	957,0899	956,3546	955,6148	954,8707	954,1221	953,3691
110	952,6117	951,8500	951,0838	950,3133	949,5385	948,7593	947,9757	947,1879	946,3957	945,5992
120	944,7984	943,9932	943,1838	942,3700	941,5520	940,7297	939,9030	939,0721	938,2369	937,3974
130	936,5536	935,7055	934,8531	933,9965	933,1355	932,2702	931,4006	930,5268	929,6486	928,7661
140	927,8792	926,9881	926,0926	925,1928	924,2886	923,3801	922,4672	921,5499	920,6282	919,7022
150	918,7717	917,8369	916,8976	915,9538	915,0057	914,0530	913,0959	912,1343	911,1681	910,1975
160	909,2223	908,2425	907,2582	906,2692	905,2757	904,2775	903,2746	902,2671	901,2549	900,2380
170	899,2163	898,1899	897,1587	896,1227	895,0818	894,0361	892,9854	891,9299	890,8694	889,8039
180	888,7335	887,6580	886,5774	885,4917	884,4009	883,3050	882,2038	881,0974	879,9857	878,8687
190	877,7464	876,6187	875,4855	874,3469	873,2028	872,0531	870,8979	869,7370	868,5704	867,3980
200	866,2199	865,0360	863,8462	862,6504	861,4487	860,2409	859,0271	857,8070	856,5808	855,3483
210	854,1095	852,8643	851,6126	850,3545	849,0897	847,8183	846,5401	845,2552	843,9634	842,6647
220	841,3589	840,0461	838,7260	837,3988	836,0641	834,7221	833,3725	832,0153	830,6504	829,2777

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,7 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,6675	1001,7130	1001,7413	1001,7531	1001,7489	1001,7293	1001,6946	1001,6453	1001,5819	1001,5048
10	1001,4143	1001,3108	1001,1947	1001,0663	1000,9258	1000,7737	1000,6100	1000,4353	1000,2495	1000,0531
20	999,8463	999,6292	999,4020	999,1651	998,9185	998,6625	998,3972	998,1228	997,8394	997,5473
30	997,2465	996,9373	996,6197	996,2939	995,9599	995,6181	995,2683	994,9109	994,5458	994,1732
40	993,7933	993,4060	993,0115	992,6099	992,2012	991,7857	991,3633	990,9341	990,4983	990,0558
50	989,6068	989,1514	988,6896	988,2215	987,7471	987,2666	986,7799	986,2872	985,7885	985,2839
60	984,7734	984,2571	983,7350	983,2072	982,6737	982,1347	981,5900	981,0399	980,4842	979,9232
70	979,3567	978,7849	978,2078	977,6255	977,0379	976,4452	975,8473	975,2443	974,6362	974,0231
80	973,4049	972,7818	972,1537	971,5207	970,8829	970,2401	969,5926	968,9402	968,2830	967,6211
90	966,9545	966,2832	965,6071	964,9265	964,2411	963,5512	962,8566	962,1575	961,4538	960,7456
100	960,0328	959,3155	958,5938	957,8675	957,1368	956,4017	955,6621	954,9180	954,1696	953,4168
110	952,6595	951,8979	951,1320	950,3616	949,5869	948,8079	948,0245	947,2368	946,4448	945,6485
120	944,8478	944,0429	943,2336	942,4201	941,6022	940,7801	939,9536	939,1229	938,2879	937,4486
130	936,6050	935,7571	934,9050	934,0485	933,1877	932,3227	931,4533	930,5797	929,7017	928,8194
140	927,9328	927,0419	926,1467	925,2471	924,3432	923,4349	922,5222	921,6052	920,6838	919,7581
150	918,8279	917,8933	916,9543	916,0108	915,0629	914,1105	913,1537	912,1924	911,2265	910,2562
160	909,2813	908,3018	907,3178	906,3292	905,3359	904,3381	903,3356	902,3284	901,3165	900,2999
170	899,2786	898,2525	897,2217	896,1860	895,1455	894,1002	893,0499	891,9948	890,9347	889,8696
180	888,7995	887,7244	886,6443	885,5590	884,4686	883,3731	882,2724	881,1664	880,0552	878,9386
190	877,8168	876,6895	875,5568	874,4187	873,2751	872,1259	870,9711	869,8107	868,6447	867,4729
200	866,2953	865,1119	863,9226	862,7274	861,5263	860,3191	859,1058	857,8864	856,6608	855,4289
210	854,1907	852,9461	851,6951	850,4376	849,1735	847,9027	846,6253	845,3410	844,0499	842,7519
220	841,4469	840,1348	838,8155	837,4890	836,1552	834,8139	833,4651	832,1088	830,7447	829,3729

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,8 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,7180	1001,7631	1001,7911	1001,8025	1001,7980	1001,7780	1001,7430	1001,6935	1001,6298	1001,5524
10	1001,4617	1001,3580	1001,2417	1001,1130	1000,9723	1000,8200	1000,6562	1000,4812	1000,2953	1000,0987
20	999,8917	999,6744	999,4471	999,2101	998,9633	998,7072	998,4418	998,1672	997,8838	997,5916
30	997,2907	996,9813	996,6636	996,3377	996,0037	995,6618	995,3120	994,9545	994,5894	994,2167
40	993,8367	993,4494	993,0548	992,6532	992,2445	991,8289	991,4065	990,9773	990,5415	990,0990
50	989,6500	989,1946	988,7328	988,2647	987,7903	987,3098	986,8231	986,3304	985,8318	985,3271
60	984,8167	984,3004	983,7783	983,2505	982,7171	982,1781	981,6335	981,0834	980,5278	979,9668
70	979,4004	978,8286	978,2516	977,6693	977,0818	976,4891	975,8913	975,2884	974,6803	974,0673
80	973,4492	972,8262	972,1982	971,5653	970,9275	970,2849	969,6374	968,9851	968,3281	967,6663
90	966,9997	966,3285	965,6526	964,9720	964,2868	963,5970	962,9025	962,2035	961,5000	960,7919
100	960,0792	959,3621	958,6404	957,9143	957,1838	956,4487	955,7093	954,9654	954,2171	953,4644
110	952,7073	951,9459	951,1801	950,4099	949,6354	948,8565	948,0733	947,2858	946,4939	945,6978
120	944,8973	944,0925	943,2835	942,4701	941,6524	940,8305	940,0042	939,1737	938,3389	937,4998
130	936,6564	935,8087	934,9568	934,1005	933,2400	932,3751	931,5060	930,6326	929,7548	928,8728
140	927,9864	927,0958	926,2007	925,3014	924,3977	923,4897	922,5773	921,6605	920,7394	919,8139
150	918,8840	917,9497	917,0109	916,0677	915,1201	914,1680	913,2115	912,2504	911,2849	910,3148
160	909,3402	908,3611	907,3774	906,3891	905,3962	904,3986	903,3965	902,3896	901,3781	900,3619
170	899,3409	898,3152	897,2847	896,2494	895,2092	894,1642	893,1144	892,0596	890,9999	889,9352
180	888,8655	887,7908	886,7111	885,6263	884,5363	883,4412	882,3409	881,2354	880,1246	879,0085
190	877,8871	876,7603	875,6281	874,4905	873,3473	872,1986	871,0444	869,8845	868,7189	867,5476
200	866,3706	865,1878	863,9990	862,8044	861,6038	860,3972	859,1845	857,9656	856,7406	855,5094
210	854,2718	853,0278	851,7775	850,5206	849,2572	847,9871	846,7103	845,4268	844,1364	842,8391
220	841,5348	840,2234	838,9049	837,5792	836,2461	834,9056	833,5577	832,2021	830,8389	829,4679

Приложение В. Плотность (кг/м³) как функция температуры при давлении 3,9 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,7684	1001,8131	1001,8408	1001,8519	1001,8471	1001,8268	1001,7915	1001,7417	1001,6777	1001,6001
10	1001,5091	1001,4052	1001,2886	1001,1597	1001,0188	1000,8663	1000,7022	1000,5271	1000,3410	1000,1443
20	999,9371	999,7197	999,4922	999,2550	999,0082	998,7519	998,4863	998,2117	997,9281	997,6358
30	997,3348	997,0254	996,7076	996,3816	996,0475	995,7055	995,3557	994,9981	994,6329	994,2602
40	993,8801	993,4927	993,0982	992,6965	992,2878	991,8722	991,4497	991,0205	990,5846	990,1422
50	989,6932	989,2377	988,7759	988,3078	987,8335	987,3529	986,8663	986,3736	985,8750	985,3704
60	984,8599	984,3436	983,8216	983,2939	982,7605	982,2215	981,6769	981,1268	980,5713	980,0103
70	979,4440	978,8723	978,2954	977,7131	977,1257	976,5331	975,9353	975,3324	974,7245	974,1115
80	973,4935	972,8706	972,2427	971,6099	970,9722	970,3296	969,6822	969,0301	968,3731	967,7114
90	967,0450	966,3738	965,6980	965,0176	964,3325	963,6427	962,9484	962,2495	961,5461	960,8381
100	960,1256	959,4086	958,6871	957,9611	957,2307	956,4958	955,7565	955,0128	954,2646	953,5121
110	952,7551	951,9939	951,2282	950,4582	949,6838	948,9051	948,1221	947,3347	946,5430	945,7471
120	944,9468	944,1422	943,3333	942,5201	941,7026	940,8808	940,0548	939,2245	938,3898	937,5509
130	936,7078	935,8603	935,0085	934,1525	933,2922	932,4276	931,5587	930,6855	929,8079	928,9261
140	928,0400	927,1496	926,2548	925,3557	924,4523	923,5445	922,6323	921,7158	920,7950	919,8697
150	918,9401	918,0060	917,0675	916,1246	915,1773	914,2255	913,2692	912,3085	911,3432	910,3735
160	909,3992	908,4204	907,4370	906,4490	905,4564	904,4592	903,4573	902,4508	901,4396	900,4237
170	899,4031	898,3777	897,3476	896,3127	895,2729	894,2283	893,1788	892,1244	891,0651	890,0008
180	888,9315	887,8572	886,7779	885,6935	884,6039	883,5092	882,4094	881,3043	880,1940	879,0783
190	877,9574	876,8311	875,6993	874,5622	873,4195	872,2713	871,1176	869,9582	868,7931	867,6224
200	866,4459	865,2636	864,0754	862,8813	861,6813	860,4752	859,2631	858,0449	856,8204	855,5898
210	854,3528	853,1095	851,8598	850,6036	849,3408	848,0714	846,7953	845,5125	844,2228	842,9262
220	841,6226	840,3120	838,9942	837,6693	836,3370	834,9973	833,6502	832,2954	830,9331	829,5629

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,0 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,8188	1001,8632	1001,8905	1001,9013	1001,8961	1001,8755	1001,8400	1001,7898	1001,7256	1001,6477
10	1001,5565	1001,4523	1001,3355	1001,2064	1001,0653	1000,9125	1000,7483	1000,5730	1000,3867	1000,1898
20	999,9825	999,7649	999,5373	999,3000	999,0530	998,7966	998,5309	998,2561	997,9725	997,6800
30	997,3790	997,0694	996,7515	996,4255	996,0913	995,7492	995,3993	995,0417	994,6764	994,3037
40	993,9235	993,5361	993,1415	992,7398	992,3311	991,9154	991,4929	991,0637	990,6278	990,1853
50	989,7363	989,2809	988,8191	988,3509	987,8766	987,3961	986,9095	986,4168	985,9182	985,4136
60	984,9031	984,3869	983,8649	983,3372	982,8038	982,2649	981,7204	981,1703	980,6148	980,0539
70	979,4876	978,9160	978,3391	977,7569	977,1696	976,5770	975,9793	975,3765	974,7686	974,1557
80	973,5378	972,9150	972,2871	971,6544	971,0168	970,3743	969,7271	969,0750	968,4181	967,7565
90	967,0902	966,4192	965,7435	965,0631	964,3781	963,6885	962,9943	962,2956	961,5922	960,8844
100	960,1720	959,4551	958,7337	958,0079	957,2776	956,5429	955,8037	955,0601	954,3121	953,5597
110	952,8029	952,0418	951,2763	950,5064	949,7322	948,9537	948,1708	947,3836	946,5921	945,7963
120	944,9962	944,1918	943,3831	942,5701	941,7528	940,9312	940,1053	939,2752	938,4408	937,6021
130	936,7591	935,9119	935,0603	934,2045	933,3444	932,4800	931,6113	930,7383	929,8610	928,9794
140	928,0935	927,2033	926,3088	925,4100	924,5068	923,5992	922,6874	921,7711	920,8505	919,9255
150	918,9961	918,0623	917,1241	916,1815	915,2345	914,2829	913,3270	912,3665	911,4016	910,4321
160	909,4581	908,4796	907,4965	906,5088	905,5166	904,5197	903,5182	902,5120	901,5011	900,4856
170	899,4653	898,4403	897,4105	896,3759	895,3365	894,2923	893,2432	892,1892	891,1302	890,0663
180	888,9975	887,9236	886,8446	885,7606	884,6715	883,5773	882,4778	881,3732	880,2633	879,1481
190	878,0276	876,9018	875,7705	874,6338	873,4916	872,3440	871,1907	870,0318	868,8673	867,6971
200	866,5211	865,3393	864,1517	862,9582	861,7587	860,5532	859,3417	858,1240	856,9002	855,6702
210	854,4338	853,1911	851,9420	850,6865	849,4243	848,1556	846,8802	845,5981	844,3091	843,0132
220	841,7104	840,4005	839,0835	837,7593	836,4278	835,0889	833,7426	832,3887	831,0271	829,6578

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,1 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,8692	1001,9132	1001,9402	1001,9507	1001,9452	1001,9243	1001,8884	1001,8380	1001,7735	1001,6954
10	1001,6039	1001,4994	1001,3824	1001,2531	1001,1118	1000,9588	1000,7944	1000,6189	1000,4324	1000,2353
20	1000,0278	999,8101	999,5824	999,3449	999,0978	998,8412	998,5754	998,3006	998,0168	997,7242
30	997,4231	997,1134	996,7955	996,4693	996,1351	995,7929	995,4429	995,0852	994,7199	994,3471
40	993,9669	993,5795	993,1848	992,7831	992,3743	991,9586	991,5361	991,1069	990,6710	990,2285
50	989,7795	989,3240	988,8622	988,3941	987,9197	987,4392	986,9526	986,4600	985,9613	985,4568
60	984,9464	984,4302	983,9082	983,3805	982,8472	982,3083	981,7638	981,2138	980,6583	980,0975
70	979,5313	978,9597	978,3828	977,8007	977,2134	976,6209	976,0233	975,4206	974,8128	974,1999
80	973,5821	972,9593	972,3316	971,6989	971,0614	970,4191	969,7719	969,1199	968,4631	967,8016
90	967,1354	966,4645	965,7889	965,1086	964,4238	963,7343	963,0402	962,3415	961,6383	960,9306
100	960,2184	959,5016	958,7804	958,0547	957,3245	956,5899	955,8509	955,1074	954,3596	953,6073
110	952,8507	952,0897	951,3244	950,5547	949,7806	949,0022	948,2195	947,4325	946,6412	945,8456
120	945,0456	944,2414	943,4329	942,6200	941,8029	940,9815	940,1559	939,3259	938,4917	937,6532
130	936,8104	935,9634	935,1121	934,2564	933,3966	932,5324	931,6639	930,7911	929,9141	929,0327
140	928,1471	927,2571	926,3628	925,4642	924,5613	923,6540	922,7423	921,8264	920,9060	919,9813
150	919,0522	918,1186	917,1807	916,2384	915,2916	914,3404	913,3847	912,4245	911,4599	910,4907
160	909,5170	908,5388	907,5560	906,5687	905,5767	904,5802	903,5790	902,5731	901,5626	900,5474
170	899,5275	898,5028	897,4734	896,4392	895,4001	894,3563	893,3075	892,2539	891,1953	890,1318
180	889,0634	887,9899	886,9114	885,8278	884,7391	883,6452	882,5462	881,4420	880,3326	879,2179
190	878,0978	876,9724	875,8417	874,7054	873,5637	872,4165	871,2638	870,1054	868,9414	867,7717
200	866,5962	865,4150	864,2279	863,0350	861,8360	860,6311	859,4202	858,2031	856,9799	855,7505
210	854,5147	853,2727	852,0242	850,7693	849,5078	848,2398	846,9651	845,6836	844,3953	843,1002
220	841,7981	840,4889	839,1727	837,8492	836,5185	835,1804	833,8349	832,4818	831,1211	829,7527

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,2 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,9196	1001,9633	1001,9899	1002,0000	1001,9942	1001,9730	1001,9368	1001,8862	1001,8214	1001,7430
10	1001,6512	1001,5466	1001,4293	1001,2998	1001,1583	1001,0051	1000,8405	1000,6648	1000,4781	1000,2809
20	1000,0732	999,8553	999,6275	999,3898	999,1426	998,8859	998,6200	998,3450	998,0611	997,7684
30	997,4672	997,1575	996,8394	996,5132	996,1789	995,8366	995,4866	995,1288	994,7634	994,3906
40	994,0104	993,6228	993,2281	992,8263	992,4176	992,0019	991,5793	991,1501	990,7141	990,2716
50	989,8226	989,3671	988,9053	988,4372	987,9629	987,4824	986,9958	986,5031	986,0045	985,5000
60	984,9896	984,4734	983,9515	983,4238	982,8905	982,3516	981,8072	981,2573	980,7019	980,1410
70	979,5749	979,0034	978,4266	977,8445	977,2573	976,6648	976,0673	975,4646	974,8569	974,2441
80	973,6264	973,0037	972,3760	971,7435	971,1060	970,4638	969,8167	969,1648	968,5081	967,8467
90	967,1806	966,5098	965,8343	965,1542	964,4694	963,7800	963,0861	962,3875	961,6844	960,9768
100	960,2647	959,5481	958,8270	958,1014	957,3714	956,6369	955,8980	955,1547	954,4070	953,6549
110	952,8985	952,1376	951,3724	950,6029	949,8290	949,0508	948,2683	947,4814	946,6903	945,8948
120	945,0950	944,2910	943,4826	942,6700	941,8531	941,0319	940,2064	939,3767	938,5426	937,7043
130	936,8618	936,0149	935,1638	934,3084	933,4487	932,5847	931,7165	930,8440	929,9671	929,0860
140	928,2006	927,3109	926,4168	925,5184	924,6157	923,7087	922,7973	921,8816	920,9615	920,0370
150	919,1082	918,1749	917,2373	916,2952	915,3487	914,3978	913,4424	912,4825	911,5181	910,5493
160	909,5759	908,5980	907,6155	906,6285	905,6368	904,6406	903,6398	902,6342	901,6241	900,6092
170	899,5896	898,5653	897,5362	896,5024	895,4637	894,4202	893,3718	892,3186	891,2604	890,1973
180	889,1292	888,0562	886,9780	885,8949	884,8066	883,7132	882,6146	881,5108	880,4018	879,2876
190	878,1680	877,0431	875,9127	874,7770	873,6358	872,4891	871,3368	870,1790	869,0155	867,8463
200	866,6714	865,4907	864,3041	863,1117	861,9134	860,7090	859,4986	858,2822	857,0596	855,8307
210	854,5956	853,3542	852,1064	850,8521	849,5913	848,3239	847,0498	845,7691	844,4815	843,1871
220	841,8857	840,5773	839,2618	837,9391	836,6091	835,2718	833,9271	832,5749	831,2150	829,8474

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,3 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1001,9700	1002,0133	1002,0396	1002,0494	1002,0433	1002,0217	1001,9853	1001,9343	1001,8693	1001,7906
10	1001,6986	1001,5937	1001,4762	1001,3464	1001,2047	1001,0513	1000,8865	1000,7106	1000,5238	1000,3264
20	1000,1186	999,9005	999,6725	999,4347	999,1873	998,9305	998,6645	998,3894	998,1054	997,8126
30	997,5113	997,2015	996,8833	996,5570	996,2226	995,8803	995,5302	995,1724	994,8069	994,4340
40	994,0537	993,6662	993,2714	992,8696	992,4608	992,0451	991,6225	991,1932	990,7573	990,3147
50	989,8657	989,4103	988,9484	988,4803	988,0060	987,5255	987,0389	986,5463	986,0477	985,5432
60	985,0328	984,5166	983,9947	983,4671	982,9339	982,3950	981,8506	981,3007	980,7454	980,1846
70	979,6185	979,0470	978,4703	977,8883	977,3011	976,7087	976,1112	975,5087	974,9010	974,2883
80	973,6707	973,0480	972,4205	971,7880	971,1506	970,5085	969,8614	969,2097	968,5531	967,8918
90	967,2258	966,5551	965,8797	965,1997	964,5150	963,8257	963,1319	962,4335	961,7305	961,0230
100	960,3111	959,5946	958,8736	958,1481	957,4182	956,6839	955,9452	955,2020	954,4545	953,7025
110	952,9462	952,1855	951,4205	950,6511	949,8774	949,0993	948,3170	947,5303	946,7393	945,9440
120	945,1444	944,3405	943,5324	942,7199	941,9032	941,0822	940,2569	939,4273	938,5935	937,7554
130	936,9131	936,0664	935,2155	934,3603	933,5008	932,6371	931,7691	930,8968	930,0202	929,1393
140	928,2541	927,3646	926,4708	925,5726	924,6702	923,7634	922,8523	921,9368	921,0170	920,0927
150	919,1642	918,2312	917,2938	916,3520	915,4058	914,4551	913,5000	912,5404	911,5764	910,6078
160	909,6347	908,6571	907,6750	906,6883	905,6969	904,7010	903,7005	902,6953	901,6855	900,6710
170	899,6517	898,6278	897,5990	896,5655	895,5272	894,4841	893,4361	892,3832	891,3255	890,2628
180	889,1951	888,1224	887,0447	885,9619	884,8741	883,7811	882,6829	881,5796	880,4711	879,3572
190	878,2381	877,1136	875,9838	874,8485	873,7078	872,5616	871,4098	870,2525	869,0895	867,9208
200	866,7464	865,5663	864,3803	863,1884	861,9906	860,7868	859,5771	858,3612	857,1391	855,9109
210	854,6764	853,4356	852,1884	850,9348	849,6747	848,4079	847,1346	845,8545	844,5676	843,2739
220	841,9732	840,6656	839,3508	838,0289	836,6997	835,3632	834,0193	832,6678	831,3088	829,9420

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,4 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,0204	1002,0633	1002,0892	1002,0987	1002,0923	1002,0704	1002,0337	1001,9824	1001,9171	1001,8382
10	1001,7460	1001,6408	1001,5231	1001,3931	1001,2512	1001,0976	1000,9326	1000,7565	1000,5695	1000,3719
20	1000,1639	999,9457	999,7176	999,4796	999,2321	998,9752	998,7090	998,4338	998,1497	997,8568
30	997,5554	997,2455	996,9272	996,6008	996,2664	995,9240	995,5738	995,2159	994,8504	994,4775
40	994,0971	993,7095	993,3147	992,9129	992,5040	992,0883	991,6657	991,2364	990,8004	990,3579
50	989,9088	989,4534	988,9915	988,5234	988,0491	987,5686	987,0820	986,5894	986,0908	985,5863
60	985,0760	984,5599	984,0380	983,5104	982,9772	982,4384	981,8940	981,3441	980,7888	980,2281
70	979,6621	979,0906	978,5140	977,9320	977,3449	976,7526	976,1552	975,5527	974,9451	974,3325
80	973,7149	973,0924	972,4649	971,8325	971,1952	970,5531	969,9062	969,2545	968,5981	967,9369
90	967,2709	966,6003	965,9251	965,2451	964,5606	963,8715	963,1777	962,4794	961,7766	961,0693
100	960,3574	959,6410	958,9202	958,1949	957,4651	956,7309	955,9923	955,2493	954,5019	953,7501
110	952,9939	952,2334	951,4685	950,6993	949,9257	949,1478	948,3656	947,5791	946,7883	945,9932
120	945,1938	944,3901	943,5821	942,7698	941,9533	941,1325	940,3074	939,4780	938,6444	937,8065
130	936,9643	936,1179	935,2672	934,4122	933,5530	932,6894	931,8216	930,9495	930,0732	929,1925
140	928,3075	927,4183	926,5247	925,6268	924,7246	923,8181	922,9072	921,9920	921,0724	920,1485
150	919,2201	918,2874	917,3503	916,4088	915,4629	914,5125	913,5577	912,5984	911,6346	910,6663
160	909,6936	908,7163	907,7344	906,7480	905,7570	904,7614	903,7612	902,7564	901,7469	900,7327
170	899,7138	898,6902	897,6618	896,6287	895,5907	894,5480	893,5004	892,4479	891,3905	890,3282
180	889,2609	888,1886	887,1113	886,0289	884,9415	883,8489	882,7512	881,6483	880,5402	879,4269
190	878,3082	877,1842	876,0548	874,9200	873,7798	872,6340	871,4828	870,3259	869,1634	867,9953
200	866,8214	865,6418	864,4564	863,2650	862,0678	860,8646	859,6554	858,4401	857,2187	855,9911
210	854,7572	853,5170	852,2704	851,0175	849,7580	848,4919	847,2192	845,9398	844,6537	843,3606
220	842,0607	840,7538	839,4398	838,1186	836,7902	835,4545	834,1113	832,7607	831,4025	830,0366

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,5 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,0708	1002,1133	1002,1389	1002,1480	1002,1413	1002,1191	1002,0821	1002,0306	1001,9650	1001,8858
10	1001,7933	1001,6879	1001,5699	1001,4397	1001,2976	1001,1438	1000,9786	1000,8023	1000,6152	1000,4174
20	1000,2093	999,9909	999,7626	999,5245	999,2769	999,0198	998,7535	998,4782	998,1940	997,9010
30	997,5995	997,2895	996,9711	996,6447	996,3101	995,9677	995,6174	995,2594	994,8939	994,5209
40	994,1405	993,7529	993,3580	992,9561	992,5472	992,1315	991,7089	991,2795	990,8435	990,4010
50	989,9519	989,4965	989,0346	988,5665	988,0922	987,6117	987,1251	986,6325	986,1340	985,6295
60	985,1192	984,6031	984,0812	983,5537	983,0205	982,4817	981,9374	981,3876	980,8323	980,2717
70	979,7056	979,1343	978,5577	977,9758	977,3887	976,7965	976,1991	975,5967	974,9892	974,3767
80	973,7592	973,1367	972,5093	971,8770	971,2398	970,5978	969,9510	969,2994	968,6430	967,9819
90	967,3161	966,6456	965,9704	965,2906	964,6062	963,9172	963,2236	962,5254	961,8227	961,1154
100	960,4037	959,6875	958,9667	958,2416	957,5120	956,7779	956,0394	955,2966	954,5493	953,7977
110	953,0416	952,2813	951,5165	950,7475	949,9741	949,1964	948,4143	947,6280	946,8373	946,0424
120	945,2431	944,4396	943,6318	942,8197	942,0034	941,1828	940,3579	939,5287	938,6953	937,8576
130	937,0156	936,1694	935,3189	934,4641	933,6051	932,7418	931,8742	931,0023	930,1262	929,2457
140	928,3610	927,4720	926,5786	925,6810	924,7790	923,8727	922,9621	922,0471	921,1278	920,2041
150	919,2761	918,3436	917,4068	916,4656	915,5199	914,5698	913,6153	912,6563	911,6928	910,7248
160	909,7524	908,7754	907,7938	906,8077	905,8171	904,8218	903,8219	902,8174	901,8082	900,7944
170	899,7758	898,7526	897,7246	896,6918	895,6542	894,6118	893,5646	892,5125	891,4555	890,3935
180	889,3266	888,2548	887,1779	886,0959	885,0089	883,9168	882,8195	881,7170	880,6094	879,4964
190	878,3782	877,2547	876,1258	874,9915	873,8517	872,7065	871,5557	870,3993	869,2374	868,0697
200	866,8964	865,7173	864,5324	863,3416	862,1450	860,9423	859,7337	858,5190	857,2982	856,0711
210	854,8379	853,5983	852,3524	851,1000	849,8412	848,5758	847,3038	846,0251	844,7396	843,4473
220	842,1481	840,8419	839,5286	838,2082	836,8806	835,5457	834,2033	832,8535	831,4961	830,1311

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,6 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,1211	1002,1633	1002,1885	1002,1973	1002,1903	1002,1678	1002,1305	1002,0787	1002,0128	1001,9333
10	1001,8406	1001,7350	1001,6168	1001,4864	1001,3440	1001,1900	1001,0247	1000,8482	1000,6609	1000,4629
20	1000,2546	1000,0361	999,8076	999,5694	999,3216	999,0644	998,7980	998,5226	998,2383	997,9452
30	997,6435	997,3334	997,0150	996,6885	996,3539	996,0113	995,6610	995,3030	994,9374	994,5643
40	994,1839	993,7962	993,4013	992,9994	992,5905	992,1746	991,7520	991,3227	990,8867	990,4441
50	989,9950	989,5395	989,0777	988,6096	988,1353	987,6548	987,1682	986,6757	986,1771	985,6727
60	985,1624	984,6463	984,1245	983,5969	983,0638	982,5250	981,9808	981,4310	980,8758	980,3152
70	979,7492	979,1779	978,6013	978,0195	977,4325	976,8404	976,2431	975,6407	975,0333	974,4208
80	973,8034	973,1810	972,5537	971,9215	971,2844	970,6425	969,9957	969,3442	968,6880	968,0270
90	967,3612	966,6908	966,0158	965,3361	964,6518	963,9629	963,2694	962,5713	961,8687	961,1616
100	960,4500	959,7339	959,0133	958,2883	957,5588	956,8249	956,0865	955,3438	954,5967	953,8452
110	953,0893	952,3291	951,5645	950,7956	950,0224	949,2448	948,4630	947,6768	946,8863	946,0915
120	945,2925	944,4891	943,6815	942,8696	942,0535	941,2330	940,4083	939,5793	938,7461	937,9086
130	937,0668	936,2208	935,3705	934,5160	933,6572	932,7941	931,9267	931,0551	930,1791	929,2989
140	928,4144	927,5256	926,6325	925,7351	924,8334	923,9274	923,0170	922,1023	921,1832	920,2598
150	919,3320	918,3998	917,4633	916,5223	915,5769	914,6271	913,6729	912,7141	911,7510	910,7833
160	909,8111	908,8344	907,8532	906,8674	905,8771	904,8821	903,8826	902,8784	901,8696	900,8561
170	899,8379	898,8149	897,7873	896,7549	895,7177	894,6756	893,6288	892,5770	891,5204	890,4589
180	889,3924	888,3209	887,2444	886,1629	885,0763	883,9846	882,8877	881,7857	880,6785	879,5660
190	878,4482	877,3251	876,1967	875,0629	873,9236	872,7788	871,6285	870,4727	869,3112	868,1441
200	866,9713	865,7928	864,6084	863,4182	862,2221	861,0200	859,8119	858,5978	857,3776	856,1512
210	854,9185	853,6796	852,4343	851,1826	849,9244	848,6597	847,3883	846,1103	844,8255	843,5339
220	842,2354	840,9300	839,6174	838,2978	836,9709	835,6368	834,2953	832,9462	831,5897	830,2255

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,7 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,1715	1002,2133	1002,2382	1002,2467	1002,2393	1002,2165	1002,1789	1002,1268	1002,0606	1001,9809
10	1001,8879	1001,7821	1001,6637	1001,5330	1001,3904	1001,2362	1001,0707	1000,8940	1000,7065	1000,5084
20	1000,2999	1000,0813	999,8527	999,6143	999,3664	999,1091	998,8425	998,5670	998,2825	997,9894
30	997,6876	997,3774	997,0589	996,7323	996,3976	996,0550	995,7046	995,3465	994,9808	994,6077
40	994,2272	993,8395	993,4446	993,0426	992,6337	992,2178	991,7952	991,3658	990,9298	990,4872
50	990,0381	989,5826	989,1208	988,6527	988,1784	987,6979	987,2113	986,7188	986,2202	985,7158
60	985,2055	984,6895	984,1677	983,6402	983,1071	982,5684	982,0241	981,4744	980,9193	980,3587
70	979,7928	979,2215	978,6450	978,0633	977,4763	976,8842	976,2870	975,6847	975,0773	974,4650
80	973,8476	973,2253	972,5981	971,9659	971,3289	970,6871	970,0405	969,3891	968,7329	968,0720
90	967,4064	966,7361	966,0611	965,3816	964,6973	964,0085	963,3152	962,6172	961,9148	961,2078
100	960,4963	959,7803	959,0599	958,3350	957,6056	956,8718	956,1336	955,3911	954,6441	953,8927
110	953,1370	952,3770	951,6125	950,8438	950,0707	949,2933	948,5116	947,7256	946,9353	946,1407
120	945,3418	944,5386	943,7312	942,9195	942,1035	941,2833	940,4587	939,6300	938,7969	937,9596
130	937,1181	936,2723	935,4222	934,5678	933,7092	932,8463	931,9792	931,1078	930,2321	929,3521
140	928,4678	927,5793	926,6864	925,7892	924,8878	923,9820	923,0719	922,1574	921,2386	920,3154
150	919,3879	918,4560	917,5197	916,5790	915,6339	914,6844	913,7304	912,7720	911,8091	910,8417
160	909,8699	908,8935	907,9126	906,9271	905,9371	904,9424	903,9432	902,9394	901,9309	900,9177
170	899,8998	898,8773	897,8500	896,8179	895,7811	894,7394	893,6929	892,6416	891,5853	890,5242
180	889,4581	888,3870	887,3109	886,2298	885,1436	884,0523	882,9559	881,8543	880,7475	879,6355
190	878,5182	877,3955	876,2676	875,1342	873,9954	872,8511	871,7014	870,5460	869,3851	868,2185
200	867,0462	865,8682	864,6843	863,4947	862,2991	861,0976	859,8901	858,6766	857,4569	856,2311
210	854,9991	853,7608	852,5161	851,2650	850,0075	848,7434	847,4728	846,1954	844,9114	843,6205
220	842,3227	841,0180	839,7062	838,3873	837,0612	835,7278	834,3871	833,0389	831,6832	830,3198

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,8 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,2218	1002,2633	1002,2878	1002,2959	1002,2882	1002,2652	1002,2272	1002,1749	1002,1085	1002,0285
10	1001,9352	1001,8291	1001,7105	1001,5796	1001,4368	1001,2824	1001,1167	1000,9398	1000,7522	1000,5539
20	1000,3452	1000,1264	999,8977	999,6592	999,4111	999,1537	998,8870	998,6113	998,3268	998,0335
30	997,7317	997,4214	997,1028	996,7761	996,4413	996,0986	995,7482	995,3900	995,0243	994,6511
40	994,2706	993,8828	993,4879	993,0858	992,6769	992,2610	991,8383	991,4089	990,9729	990,5303
50	990,0812	989,6257	989,1639	988,6957	988,2214	987,7410	987,2544	986,7619	986,2634	985,7589
60	985,2487	984,7327	984,2109	983,6834	983,1504	982,6117	982,0675	981,5178	980,9627	980,4022
70	979,8363	979,2651	978,6887	978,1070	977,5201	976,9281	976,3309	975,7287	975,1214	974,5091
80	973,8918	973,2696	972,6424	972,0104	971,3735	970,7317	970,0852	969,4339	968,7778	968,1170
90	967,4515	966,7813	966,1065	965,4270	964,7429	964,0542	963,3610	962,6631	961,9608	961,2539
100	960,5426	959,8267	959,1064	958,3816	957,6524	956,9188	956,1807	955,4383	954,6915	953,9403
110	953,1847	952,4248	951,6605	950,8919	950,1190	949,3418	948,5602	947,7744	946,9843	946,1898
120	945,3911	944,5881	943,7809	942,9693	942,1535	941,3335	940,5092	939,6806	938,8477	938,0106
130	937,1693	936,3237	935,4738	934,6197	933,7613	932,8986	932,0317	931,1605	930,2850	929,4053
140	928,5212	927,6329	926,7403	925,8434	924,9421	924,0366	923,1267	922,2125	921,2939	920,3710
150	919,4438	918,5121	917,5761	916,6357	915,6909	914,7416	913,7880	912,8298	911,8672	910,9002
160	909,9286	908,9525	907,9719	906,9867	905,9970	905,0027	904,0038	903,0003	901,9921	900,9793
170	899,9618	898,9396	897,9126	896,8809	895,8444	894,8032	893,7570	892,7061	891,6502	890,5894
180	889,5237	888,4530	887,3774	886,2967	885,2109	884,1200	883,0240	881,9229	880,8165	879,7049
190	878,5881	877,4659	876,3384	875,2055	874,0672	872,9234	871,7741	870,6193	869,4589	868,2928
200	867,1210	865,9435	864,7602	863,5711	862,3761	861,1752	859,9683	858,7553	857,5362	856,3110
210	855,0796	853,8419	852,5979	851,3475	850,0906	848,8272	847,5572	846,2805	844,9971	843,7069
220	842,4099	841,1059	839,7948	838,4767	837,1514	835,8188	834,4788	833,1315	831,7765	830,4140

Приложение В. Плотность (кг/м³) как функция температуры при давлении 4,9 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,2721	1002,3132	1002,3374	1002,3452	1002,3372	1002,3138	1002,2756	1002,2229	1002,1563	1002,0760
10	1001,9825	1001,8762	1001,7573	1001,6262	1001,4832	1001,3286	1001,1627	1000,9857	1000,7978	1000,5994
20	1000,3905	1000,1716	999,9427	999,7040	999,4558	999,1983	998,9315	998,6557	998,3710	998,0777
30	997,7757	997,4653	997,1467	996,8199	996,4850	996,1423	995,7917	995,4335	995,0677	994,6945
40	994,3139	993,9261	993,5311	993,1291	992,7200	992,3041	991,8814	991,4520	991,0160	990,5734
50	990,1243	989,6688	989,2069	988,7388	988,2645	987,7840	987,2975	986,8050	986,3065	985,8021
60	985,2919	984,7758	984,2541	983,7267	983,1936	982,6550	982,1109	981,5612	981,0061	980,4457
70	979,8798	979,3087	978,7323	978,1507	977,5639	976,9719	976,3748	975,7727	975,1654	974,5532
80	973,9360	973,3139	972,6868	972,0548	971,4180	970,7764	970,1299	969,4787	968,8227	968,1620
90	967,4966	966,8265	966,1518	965,4724	964,7884	964,0999	963,4067	962,7090	962,0068	961,3001
100	960,5888	959,8731	959,1529	958,4283	957,6992	956,9657	956,2278	955,4855	954,7388	953,9878
110	953,2324	952,4726	951,7085	950,9400	950,1673	949,3902	948,6088	947,8232	947,0332	946,2389
120	945,4404	944,6376	943,8305	943,0192	942,2036	941,3837	940,5596	939,7312	938,8985	938,0616
130	937,2205	936,3751	935,5254	934,6715	933,8133	932,9508	932,0841	931,2132	930,3379	929,4584
140	928,5746	927,6865	926,7941	925,8974	924,9964	924,0911	923,1815	922,2676	921,3493	920,4266
150	919,4996	918,5683	917,6325	916,6924	915,7478	914,7989	913,8455	912,8876	911,9253	910,9585
160	909,9873	909,0115	908,0312	907,0464	906,0570	905,0630	904,0644	903,0612	902,0534	901,0409
170	900,0237	899,0019	897,9753	896,9439	895,9078	894,8669	893,8211	892,7705	891,7150	890,6547
180	889,5894	888,5191	887,4438	886,3635	885,2781	884,1877	883,0921	881,9914	880,8855	879,7744
190	878,6580	877,5363	876,4092	875,2768	874,1390	872,9957	871,8469	870,6925	869,5326	868,3670
200	867,1958	866,0188	864,8361	863,6475	862,4531	861,2527	860,0463	858,8340	857,6155	856,3909
210	855,1601	853,9230	852,6796	851,4298	850,1736	848,9108	847,6415	846,3655	845,0828	843,7933
220	842,4970	841,1937	839,8834	838,5660	837,2415	835,9097	834,5705	833,2239	831,8698	830,5081

Приложение В. Плотность (кг/м³) как функция температуры при давлении 5,0 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	1002,3224	1002,3632	1002,3870	1002,3945	1002,3861	1002,3625	1002,3239	1002,2710	1002,2041	1002,1236
10	1002,0298	1001,9232	1001,8041	1001,6728	1001,5296	1001,3748	1001,2087	1001,0315	1000,8434	1000,6448
20	1000,4358	1000,2167	999,9877	999,7489	999,5006	999,2429	998,9760	998,7001	998,4153	998,1218
30	997,8198	997,5093	997,1905	996,8636	996,5287	996,1859	995,8353	995,4770	995,1112	994,7379
40	994,3573	993,9694	993,5744	993,1723	992,7632	992,3473	991,9246	991,4951	991,0591	990,6164
50	990,1673	989,7118	989,2500	988,7819	988,3075	987,8271	987,3406	986,8480	986,3496	985,8452
60	985,3350	984,8190	984,2973	983,7699	983,2369	982,6983	982,1542	981,6046	981,0496	980,4891
70	979,9234	979,3523	978,7760	978,1944	977,6076	977,0157	976,4187	975,8166	975,2095	974,5973
80	973,9802	973,3581	972,7311	972,0993	971,4625	970,8210	970,1746	969,5235	968,8676	968,2070
90	967,5417	966,8717	966,1971	965,5178	964,8340	964,1455	963,4525	962,7549	962,0528	961,3462
100	960,6351	959,9195	959,1994	958,4749	957,7460	957,0126	956,2749	955,5327	954,7862	954,0353
110	953,2800	952,5204	951,7564	950,9882	950,2156	949,4386	948,6574	947,8719	947,0821	946,2881
120	945,4897	944,6871	943,8802	943,0690	942,2536	941,4339	940,6099	939,7817	938,9493	938,1126
130	937,2716	936,4264	935,5770	934,7233	933,8653	933,0031	932,1366	931,2658	930,3908	929,5115
140	928,6279	927,7401	926,8479	925,9515	925,0507	924,1457	923,2363	922,3226	921,4046	920,4822
150	919,5555	918,6244	917,6889	916,7490	915,8047	914,8561	913,9030	912,9454	911,9834	911,0169
160	910,0459	909,0705	908,0905	907,1059	906,1169	905,1232	904,1250	903,1221	902,1146	901,1024
170	900,0856	899,0641	898,0379	897,0069	895,9711	894,9305	893,8852	892,8350	891,7799	890,7199
180	889,6549	888,5851	887,5102	886,4303	885,3454	884,2553	883,1602	882,0599	880,9544	879,8437
190	878,7278	877,6065	876,4800	875,3480	874,2107	873,0678	871,9195	870,7657	869,6063	868,4412
200	867,2705	866,0941	864,9119	863,7238	862,5299	861,3301	860,1244	858,9126	857,6947	856,4707
210	855,2405	854,0040	852,7612	851,5121	850,2565	848,9944	847,7258	846,4505	845,1685	843,8797
220	842,5840	841,2815	839,9719	838,6553	837,3315	836,0005	834,6621	833,3163	831,9631	830,6022

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,1 МПа

Т °С	0	1	2	3	4	5	6	7	8	9
0	0,0597	4,2774	8,4918	12,7032	16,9119	21,1180	25,3219	29,5236	33,7233	37,9212
10	42,1174	46,3121	50,5054	54,6974	58,8881	63,0778	67,2664	71,4540	75,6407	79,8267
20	84,0118	88,1963	92,3801	96,5633	100,7459	104,9281	109,1097	113,2910	117,4718	121,6523
30	125,8325	130,0124	134,1920	138,3714	142,5506	146,7296	150,9085	155,0873	159,2660	163,4446
40	167,6231	171,8017	175,9803	180,1588	184,3375	188,5162	192,6950	196,8740	201,0531	205,2323
50	209,4118	213,5915	217,7714	221,9515	226,1320	230,3127	234,4938	238,6752	242,8569	247,0391
60	251,2216	255,4046	259,5880	263,7719	267,9563	272,1412	276,3267	280,5127	284,6992	288,8864
70	293,0742	297,2626	301,4517	305,6415	309,8319	314,0231	318,2150	322,4077	326,6012	330,7954
80	334,9905	339,1865	343,3833	347,5810	351,7796	355,9791	360,1796	364,3811	368,5835	372,7870
90	376,9915	381,1971	385,4037	389,6114	393,8203	398,0303	402,2414	406,4538	410,6673	414,8821
100	2675,7674	2677,8392	2679,9068	2681,9704	2684,0303	2686,0866	2688,1395	2690,1893	2692,2361	2694,2801
110	2696,3213	2698,3600	2700,3961	2702,4299	2704,4614	2706,4908	2708,5180	2710,5433	2712,5665	2714,5879
120	2716,6075	2718,6254	2720,6416	2722,6561	2724,6691	2726,6805	2728,6905	2730,6990	2732,7062	2734,7120
130	2736,7166	2738,7199	2740,7220	2742,7229	2744,7227	2746,7214	2748,7190	2750,7156	2752,7112	2754,7058
140	2756,6995	2758,6923	2760,6843	2762,6753	2764,6656	2766,6551	2768,6439	2770,6319	2772,6192	2774,6058
150	2776,5918	2778,5772	2780,5619	2782,5461	2784,5297	2786,5127	2788,4953	2790,4773	2792,4589	2794,4400
160	2796,4207	2798,4010	2800,3808	2802,3603	2804,3394	2806,3182	2808,2967	2810,2749	2812,2527	2814,2303
170	2816,2077	2818,1847	2820,1616	2822,1383	2824,1147	2826,0910	2828,0671	2830,0430	2832,0188	2833,9945
180	2835,9701	2837,9455	2839,9209	2841,8962	2843,8714	2845,8466	2847,8217	2849,7968	2851,7719	2853,7470
190	2855,7220	2857,6971	2859,6722	2861,6474	2863,6225	2865,5978	2867,5731	2869,5484	2871,5239	2873,4994
200	2875,4751	2877,4508	2879,4267	2881,4026	2883,3788	2885,3550	2887,3314	2889,3080	2891,2847	2893,2616
210	2895,2387	2897,2159	2899,1934	2901,1710	2903,1489	2905,1269	2907,1052	2909,0837	2911,0624	2913,0414
220	2915,0206	2917,0001	2918,9798	2920,9598	2922,9401	2924,9206	2926,9014	2928,8825	2930,8639	2932,8456

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,101325 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,0610	4,2787	8,4931	12,7046	16,9132	21,1194	25,3232	29,5249	33,7246	37,9225
10	42,1187	46,3134	50,5067	54,6987	58,8894	63,0790	67,2676	71,4552	75,6420	79,8279
20	84,0131	88,1975	92,3813	96,5645	100,7472	104,9293	109,1110	113,2922	117,4731	121,6535
30	125,8337	130,0136	134,1932	138,3726	142,5518	146,7308	150,9097	155,0885	159,2671	163,4457
40	167,6243	171,8029	175,9814	180,1600	184,3386	188,5174	192,6962	196,8751	201,0542	205,2335
50	209,4129	213,5926	217,7725	221,9527	226,1331	230,3138	234,4949	238,6763	242,8580	247,0402
60	251,2227	255,4057	259,5891	263,7730	267,9574	272,1423	276,3278	280,5138	284,7003	288,8875
70	293,0753	297,2637	301,4528	305,6425	309,8330	314,0242	318,2161	322,4088	326,6022	330,7965
80	334,9916	339,1875	343,3844	347,5820	351,7807	355,9802	360,1807	364,3821	368,5846	372,7880
90	376,9925	381,1981	385,4047	389,6125	393,8213	398,0313	402,2424	406,4548	410,6683	414,8831
100	2675,5849	2677,6598	2679,7304	2681,7968	2683,8594	2685,9183	2687,9738	2690,0261	2692,0752	2694,1215
110	2696,1650	2698,2058	2700,2441	2702,2800	2704,3135	2706,3448	2708,3740	2710,4011	2712,4262	2714,4494
120	2716,4707	2718,4903	2720,5082	2722,5244	2724,5389	2726,5520	2728,5635	2730,5736	2732,5822	2734,5896
130	2736,5955	2738,6003	2740,6037	2742,6060	2744,6071	2746,6071	2748,6061	2750,6039	2752,6008	2754,5966
140	2756,5916	2758,5856	2760,5787	2762,5709	2764,5623	2766,5529	2768,5428	2770,5319	2772,5202	2774,5079
150	2776,4949	2778,4813	2780,4670	2782,4521	2784,4367	2786,4207	2788,4042	2790,3871	2792,3696	2794,3516
160	2796,3332	2798,3143	2800,2950	2802,2753	2804,2553	2806,2349	2808,2141	2810,1931	2812,1717	2814,1501
170	2816,1281	2818,1060	2820,0836	2822,0609	2824,0381	2826,0151	2827,9918	2829,9685	2831,9449	2833,9213
180	2835,8975	2837,8736	2839,8496	2841,8255	2843,8013	2845,7771	2847,7528	2849,7285	2851,7042	2853,6798
190	2855,6554	2857,6311	2859,6067	2861,5824	2863,5581	2865,5339	2867,5097	2869,4856	2871,4615	2873,4376
200	2875,4137	2877,3899	2879,3663	2881,3427	2883,3193	2885,2960	2887,2729	2889,2499	2891,2270	2893,2044
210	2895,1819	2897,1596	2899,1374	2901,1155	2903,0937	2905,0722	2907,0509	2909,0298	2911,0089	2912,9883
220	2914,9679	2916,9477	2918,9278	2920,9082	2922,8888	2924,8697	2926,8509	2928,8323	2930,8140	2932,7961

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,2 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,1615	4,3787	8,5927	12,8036	17,0119	21,2176	25,4210	29,6223	33,8216	38,0191
10	42,2150	46,4093	50,6022	54,7938	58,9842	63,1735	67,3618	71,5491	75,7355	79,9211
20	84,1059	88,2901	92,4736	96,6565	100,8388	105,0207	109,2021	113,3830	117,5636	121,7438
30	125,9237	130,1033	134,2827	138,4618	142,6408	146,8195	150,9982	155,1767	159,3551	163,5335
40	167,7118	171,8901	176,0684	180,2467	184,4251	188,6036	192,7822	196,9609	201,1398	205,3188
50	209,4980	213,6775	217,8572	222,0371	226,2173	230,3978	234,5786	238,7598	242,9413	247,1233
60	251,3056	255,4884	259,6716	263,8553	268,0394	272,2241	276,4093	280,5951	284,7815	288,9684
70	293,1560	297,3442	301,5330	305,7226	309,9128	314,1038	318,2955	322,4879	326,6812	330,8752
80	335,0701	339,2659	343,4624	347,6599	351,8583	356,0576	360,2579	364,4591	368,6614	372,8646
90	377,0689	381,2742	385,4806	389,6881	393,8968	398,1065	402,3174	406,5296	410,7429	414,9574
100	419,1732	423,3903	427,6086	431,8283	436,0493	440,2716	444,4953	448,7205	452,9470	457,1751
110	461,4045	465,6355	469,8680	474,1021	478,3377	482,5749	486,8137	491,0541	495,2962	499,5400
120	503,7855	2707,9542	2710,1207	2712,2809	2714,4351	2716,5839	2718,7274	2720,8659	2722,9998	2725,1293
130	2727,2545	2729,3757	2731,4931	2733,6067	2735,7168	2737,8236	2739,9270	2742,0274	2744,1246	2746,2190
140	2748,3106	2750,3994	2752,4855	2754,5691	2756,6503	2758,7290	2760,8054	2762,8795	2764,9514	2767,0212
150	2769,0889	2771,1546	2773,2184	2775,2802	2777,3402	2779,3984	2781,4549	2783,5097	2785,5628	2787,6143
160	2789,6642	2791,7126	2793,7596	2795,8051	2797,8492	2799,8919	2801,9334	2803,9735	2806,0124	2808,0501
170	2810,0867	2812,1220	2814,1563	2816,1895	2818,2217	2820,2528	2822,2830	2824,3121	2826,3404	2828,3678
180	2830,3943	2832,4200	2834,4448	2836,4688	2838,4921	2840,5147	2842,5365	2844,5576	2846,5781	2848,5979
190	2850,6171	2852,6357	2854,6537	2856,6711	2858,6881	2860,7044	2862,7203	2864,7357	2866,7507	2868,7652
200	2870,7793	2872,7930	2874,8062	2876,8192	2878,8317	2880,8439	2882,8558	2884,8674	2886,8787	2888,8898
210	2890,9005	2892,9111	2894,9213	2896,9314	2898,9413	2900,9510	2902,9605	2904,9698	2906,9790	2908,9880
220	2910,9970	2913,0058	2915,0145	2917,0231	2919,0317	2921,0401	2923,0486	2925,0569	2927,0653	2929,0736

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Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,2634	4,4801	8,6936	12,9041	17,1118	21,3171	25,5201	29,7210	33,9199	38,1170
10	42,3125	46,5064	50,6990	54,8902	59,0803	63,2692	67,4571	71,6441	75,8302	80,0155
20	84,2000	88,3839	92,5671	96,7497	100,9317	105,1133	109,2944	113,4751	117,6554	121,8353
30	126,0149	130,1943	134,3734	138,5522	142,7309	146,9094	151,0878	155,2660	159,4442	163,6223
40	167,8004	171,9785	176,1565	180,3346	184,5128	188,6910	192,8694	197,0479	201,2265	205,4053
50	209,5843	213,7635	217,9429	222,1226	226,3026	230,4829	234,6635	238,8445	243,0258	247,2075
60	251,3896	255,5721	259,7551	263,9386	268,1225	272,3070	276,4920	280,6775	284,8637	289,0504
70	293,2377	297,4257	301,6144	305,8037	309,9937	314,1845	318,3759	322,5682	326,7612	330,9551
80	335,1497	339,3452	343,5416	347,7389	351,9370	356,1361	360,3362	364,5372	368,7392	372,9422
90	377,1463	381,3514	385,5576	389,7648	393,9732	398,1828	402,3935	406,6054	410,8184	415,0327
100	419,2483	423,4651	427,6832	431,9027	436,1234	440,3456	444,5691	448,7940	453,0203	457,2481
110	461,4773	465,7080	469,9403	474,1741	478,4094	482,6464	486,8849	491,1251	495,3670	499,6105
120	503,8558	508,1028	512,3515	516,6020	520,8544	525,1086	529,3646	533,6225	537,8824	542,1442
130	546,4079	550,6737	554,9415	559,2114	2725,9641	2728,2165	2730,4600	2732,6951	2734,9224	2737,1424
140	2739,3555	2741,5622	2743,7628	2745,9576	2748,1470	2750,3311	2752,5103	2754,6847	2756,8546	2759,0201
150	2761,1815	2763,3388	2765,4923	2767,6421	2769,7882	2771,9308	2774,0701	2776,2061	2778,3390	2780,4688
160	2782,5956	2784,7195	2786,8407	2788,9591	2791,0748	2793,1880	2795,2987	2797,4069	2799,5127	2801,6163
170	2803,7176	2805,8167	2807,9136	2810,0085	2812,1014	2814,1923	2816,2812	2818,3683	2820,4536	2822,5371
180	2824,6188	2826,6989	2828,7773	2830,8542	2832,9294	2835,0032	2837,0754	2839,1463	2841,2157	2843,2838
190	2845,3505	2847,4159	2849,4801	2851,5430	2853,6048	2855,6654	2857,7249	2859,7832	2861,8405	2863,8968
200	2865,9520	2868,0063	2870,0596	2872,1120	2874,1635	2876,2142	2878,2640	2880,3129	2882,3611	2884,4085
210	2886,4552	2888,5011	2890,5463	2892,5909	2894,6348	2896,6780	2898,7207	2900,7627	2902,8042	2904,8451
220	2906,8855	2908,9254	2910,9648	2913,0037	2915,0422	2917,0802	2919,1178	2921,1549	2923,1917	2925,2281

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,3652	4,5814	8,7944	13,0045	17,2118	21,4166	25,6192	29,8196	34,0182	38,2149
10	42,4100	46,6036	50,7957	54,9866	59,1763	63,3649	67,5525	71,7392	75,9249	80,1099
20	84,2941	88,4776	92,6605	96,8428	101,0246	105,2059	109,3867	113,5671	117,7471	121,9268
30	126,1061	130,2852	134,4640	138,6426	142,8210	146,9993	151,1774	155,3554	159,5333	163,7112
40	167,8890	172,0668	176,2447	180,4225	184,6005	188,7785	192,9566	197,1348	201,3132	205,4918
50	209,6705	213,8495	218,0287	222,2082	226,3879	230,5680	234,7484	238,9291	243,1102	247,2917
60	251,4736	255,6559	259,8386	264,0219	268,2056	272,3899	276,5746	280,7600	284,9459	289,1324
70	293,3195	297,5073	301,6957	305,8848	310,0746	314,2651	318,4564	322,6484	326,8412	331,0349
80	335,2293	339,4246	343,6207	347,8178	352,0157	356,2146	360,4144	364,6152	368,8170	373,0198
90	377,2236	381,4285	385,6345	389,8415	394,0497	398,2590	402,4695	406,6812	410,8940	415,1081
100	419,3234	423,5400	427,7579	431,9771	436,1976	440,4195	444,6428	448,8674	453,0935	457,3211
110	461,5501	465,7805	470,0126	474,2461	478,4812	482,7179	486,9562	491,1962	495,4378	499,6811
120	503,9261	508,1728	512,4213	516,6715	520,9236	525,1775	529,4333	533,6910	537,9506	542,2121
130	546,4756	550,7411	555,0086	559,2782	563,5498	567,8236	572,0995	576,3776	580,6579	584,9404
140	589,2252	593,5123	597,8017	602,0934	2738,9625	2741,2918	2743,6095	2745,9165	2748,2135	2750,5012
150	2752,7802	2755,0511	2757,3143	2759,5703	2761,8194	2764,0621	2766,2986	2768,5293	2770,7543	2772,9741
160	2775,1887	2777,3983	2779,6033	2781,8037	2783,9997	2786,1914	2788,3791	2790,5628	2792,7427	2794,9188
170	2797,0914	2799,2604	2801,4261	2803,5885	2805,7476	2807,9036	2810,0566	2812,2066	2814,3538	2816,4981
180	2818,6397	2820,7787	2822,9150	2825,0489	2827,1802	2829,3092	2831,4358	2833,5601	2835,6821	2837,8020
190	2839,9198	2842,0355	2844,1492	2846,2609	2848,3707	2850,4786	2852,5847	2854,6890	2856,7916	2858,8925
200	2860,9917	2863,0892	2865,1853	2867,2797	2869,3727	2871,4642	2873,5543	2875,6431	2877,7304	2879,8165
210	2881,9012	2883,9848	2886,0670	2888,1482	2890,2281	2892,3069	2894,3847	2896,4614	2898,5370	2900,6116
220	2902,6853	2904,7580	2906,8298	2908,9006	2910,9706	2913,0398	2915,1081	2917,1756	2919,2424	2921,3083

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Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,5 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,4670	4,6827	8,8953	13,1048	17,3117	21,5161	25,7183	29,9183	34,1164	38,3128
10	42,5075	46,7007	50,8925	55,0830	59,2724	63,4606	67,6479	71,8342	76,0196	80,2043
20	84,3882	88,5714	92,7540	96,9360	101,1175	105,2985	109,4790	113,6591	117,8388	122,0182
30	126,1973	130,3761	134,5547	138,7330	142,9112	147,0892	151,2670	155,4448	159,6224	163,8001
40	167,9776	172,1552	176,3328	180,5104	184,6881	188,8659	193,0437	197,2218	201,3999	205,5782
50	209,7568	213,9355	218,1145	222,2937	226,4733	230,6531	234,8333	239,0138	243,1946	247,3759
60	251,5575	255,7396	259,9222	264,1052	268,2887	272,4727	276,6573	280,8424	285,0281	289,2144
70	293,4013	297,5888	301,7770	305,9659	310,1555	314,3458	318,5369	322,7287	326,9213	331,1147
80	335,3089	339,5040	343,6999	347,8967	352,0944	356,2931	360,4927	364,6933	368,8948	373,0974
90	377,3010	381,5057	385,7114	389,9182	394,1262	398,3353	402,5455	406,7570	410,9696	415,1834
100	419,3985	423,6149	427,8325	432,0515	436,2718	440,4935	444,7165	448,9409	453,1668	457,3941
110	461,6228	465,8531	470,0848	474,3181	478,5530	482,7895	487,0275	491,2672	495,5086	499,7516
120	503,9963	508,2428	512,4910	516,7410	520,9929	525,2465	529,5020	533,7594	538,0187	542,2800
130	546,5432	550,8084	555,0757	559,3450	563,6164	567,8898	572,1655	576,4433	580,7233	585,0055
140	589,2900	593,5768	597,8659	602,1573	606,4512	610,7475	615,0462	619,3474	623,6511	627,9574
150	632,2663	636,5778	2748,5025	2750,9051	2753,2934	2755,6686	2758,0316	2760,3832	2762,7244	2765,0556
160	2767,3776	2769,6910	2771,9961	2774,2935	2776,5836	2778,8667	2781,1431	2783,4133	2785,6773	2787,9356
170	2790,1883	2792,4357	2794,6779	2796,9151	2799,1476	2801,3754	2803,5987	2805,8177	2808,0325	2810,2432
180	2812,4500	2814,6529	2816,8520	2819,0475	2821,2395	2823,4280	2825,6132	2827,7951	2829,9738	2832,1494
190	2834,3219	2836,4915	2838,6583	2840,8222	2842,9833	2845,1418	2847,2977	2849,4510	2851,6018	2853,7502
200	2855,8962	2858,0399	2860,1813	2862,3205	2864,4576	2866,5925	2868,7254	2870,8563	2872,9852	2875,1122
210	2877,2373	2879,3607	2881,4822	2883,6020	2885,7200	2887,8365	2889,9513	2892,0645	2894,1762	2896,2864
220	2898,3951	2900,5024	2902,6083	2904,7128	2906,8160	2908,9179	2911,0186	2913,1180	2915,2162	2917,3133

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,6 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,5688	4,7840	8,9961	13,2052	17,4117	21,6156	25,8173	30,0170	34,2147	38,4106
10	42,6050	46,7978	50,9892	55,1794	59,3684	63,5563	67,7432	71,9292	76,1143	80,2987
20	84,4823	88,6652	92,8475	97,0292	101,2104	105,3910	109,5713	113,7511	117,9306	122,1097
30	126,2885	130,4670	134,6453	138,8234	143,0013	147,1790	151,3566	155,5341	159,7116	163,8889
40	168,0663	172,2436	176,4209	180,5983	184,7757	188,9533	193,1309	197,3087	201,4866	205,6647
50	209,8430	214,0215	218,2003	222,3793	226,5586	230,7382	234,9181	239,0984	243,2790	247,4601
60	251,6415	255,8234	260,0057	264,1885	268,3718	272,5556	276,7399	280,9248	285,1103	289,2964
70	293,4831	297,6704	301,8584	306,0470	310,2364	314,4265	318,6173	322,8089	327,0013	331,1945
80	335,3885	339,5833	343,7790	347,9756	352,1731	356,3716	360,5710	364,7713	368,9727	373,1750
90	377,3784	381,5828	385,7883	389,9950	394,2027	398,4115	402,6216	406,8328	411,0452	415,2588
100	419,4736	423,6898	427,9072	432,1259	436,3460	440,5674	444,7902	449,0144	453,2400	457,4671
110	461,6956	465,9256	470,1571	474,3902	478,6248	482,8610	487,0988	491,3383	495,5794	499,8221
120	504,0666	508,3128	512,5608	516,8106	521,0621	525,3155	529,5708	533,8279	538,0869	542,3479
130	546,6109	550,8758	555,1428	559,4118	563,6829	567,9561	572,2314	576,5090	580,7887	585,0706
140	589,3548	593,6413	597,9301	602,2212	606,5148	610,8107	615,1092	619,4100	623,7135	628,0194
150	632,3280	636,6392	640,9530	645,2696	649,5889	653,9109	658,2358	662,5635	666,8941	2756,5542
160	2759,0225	2761,4741	2763,9106	2766,3329	2768,7422	2771,1393	2773,5251	2775,9002	2778,2654	2780,6212
170	2782,9682	2785,3068	2787,6374	2789,9605	2792,2764	2794,5854	2796,8878	2799,1840	2801,4740	2803,7582
180	2806,0369	2808,3100	2810,5780	2812,8409	2815,0989	2817,3522	2819,6008	2821,8450	2824,0848	2826,3204
190	2828,5519	2830,7794	2833,0030	2835,2229	2837,4390	2839,6515	2841,8606	2844,0662	2846,2684	2848,4674
200	2850,6632	2852,8559	2855,0456	2857,2323	2859,4161	2861,5971	2863,7754	2865,9509	2868,1238	2870,2941
210	2872,4619	2874,6273	2876,7903	2878,9509	2881,1092	2883,2653	2885,4191	2887,5709	2889,7206	2891,8682
220	2894,0138	2896,1575	2898,2993	2900,4392	2902,5773	2904,7136	2906,8482	2908,9811	2911,1123	2913,2420

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,6706	4,8853	9,0969	13,3056	17,5116	21,7151	25,9164	30,1156	34,3129	38,5085
10	42,7024	46,8949	51,0860	55,2758	59,4644	63,6520	67,8386	72,0242	76,2090	80,3930
20	84,5763	88,7589	92,9409	97,1223	101,3032	105,4836	109,6636	113,8431	118,0223	122,2011
30	126,3797	130,5579	134,7360	138,9138	143,0914	147,2689	151,4462	155,6235	159,8007	163,9778
40	168,1549	172,3319	176,5090	180,6862	184,8634	189,0407	193,2181	197,3956	201,5733	205,7512
50	209,9292	214,1075	218,2860	222,4648	226,6439	230,8233	235,0030	239,1830	243,3635	247,5443
60	251,7255	255,9071	260,0892	264,2718	268,4549	272,6385	276,8226	281,0073	285,1925	289,3784
70	293,5648	297,7519	301,9397	306,1282	310,3173	314,5072	318,6978	322,8892	327,0813	331,2743
80	335,4681	339,6627	343,8582	348,0546	352,2518	356,4501	360,6492	364,8494	369,0505	373,2526
90	377,4558	381,6600	385,8653	390,0717	394,2792	398,4878	402,6976	406,9086	411,1207	415,3341
100	419,5488	423,7647	427,9819	432,2004	436,4202	440,6414	444,8639	449,0879	453,3133	457,5401
110	461,7684	465,9981	470,2294	474,4622	478,6966	482,9326	487,1701	491,4093	495,6502	499,8927
120	504,1369	508,3829	512,6306	516,8801	521,1314	525,3845	529,6395	533,8964	538,1551	542,4158
130	546,6785	550,9432	555,2099	559,4786	563,7494	568,0224	572,2974	576,5746	580,8541	585,1357
140	589,4196	593,7058	597,9943	602,2851	606,5784	610,8740	615,1721	619,4727	623,7758	628,0815
150	632,3897	636,7006	641,0141	645,3303	649,6492	653,9710	658,2955	662,6228	666,9531	671,2863
160	675,6224	679,9615	684,3037	688,6490	692,9974	2762,8692	2765,4015	2767,9150	2770,4111	2772,8912
170	2775,3564	2777,8079	2780,2465	2782,6731	2785,0885	2787,4933	2789,8881	2792,2736	2794,6501	2797,0181
180	2799,3781	2801,7303	2804,0753	2806,4131	2808,7442	2811,0688	2813,3872	2815,6995	2818,0060	2820,3068
190	2822,6022	2824,8923	2827,1773	2829,4573	2831,7325	2834,0030	2836,2690	2838,5305	2840,7876	2843,0406
200	2845,2895	2847,5343	2849,7753	2852,0124	2854,2459	2856,4757	2858,7019	2860,9247	2863,1442	2865,3603
210	2867,5732	2869,7829	2871,9896	2874,1933	2876,3940	2878,5918	2880,7869	2882,9792	2885,1688	2887,3558
220	2889,5402	2891,7221	2893,9015	2896,0786	2898,2533	2900,4257	2902,5959	2904,7639	2906,9297	2909,0935

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,7723	4,9866	9,1977	13,4059	17,6115	21,8146	26,0154	30,2142	34,4111	38,6063
10	42,7999	46,9920	51,1827	55,3722	59,5605	63,7477	67,9339	72,1192	76,3037	80,4874
20	84,6704	88,8527	93,0344	97,2155	101,3961	105,5762	109,7558	113,9351	118,1140	122,2926
30	126,4708	130,6488	134,8266	139,0042	143,1815	147,3588	151,5359	155,7128	159,8898	164,0666
40	168,2435	172,4203	176,5972	180,7741	184,9510	189,1281	193,3052	197,4825	201,6600	205,8376
50	210,0155	214,1935	218,3718	222,5504	226,7292	230,9084	235,0878	239,2677	243,4479	247,6285
60	251,8094	255,9909	260,1728	264,3551	268,5380	272,7213	276,9052	281,0897	285,2747	289,4604
70	293,6466	297,8335	302,0210	306,2093	310,3982	314,5878	318,7782	322,9694	327,1613	331,3541
80	335,5476	339,7421	343,9373	348,1335	352,3306	356,5286	360,7275	364,9274	369,1283	373,3302
90	377,5332	381,7372	385,9422	390,1484	394,3557	398,5641	402,7736	406,9844	411,1963	415,4095
100	419,6239	423,8396	428,0565	432,2748	436,4944	440,7153	444,9377	449,1614	453,3865	457,6131
110	461,8411	466,0707	470,3017	474,5343	478,7684	483,0041	487,2414	491,4804	495,7210	499,9632
120	504,2072	508,4529	512,7004	516,9496	521,2006	525,4535	529,7082	533,9648	538,2233	542,4838
130	546,7462	551,0106	555,2770	559,5455	563,8160	568,0886	572,3634	576,6403	580,9195	585,2008
140	589,4844	593,7703	598,0585	602,3491	606,6420	610,9373	615,2351	619,5354	623,8382	628,1435
150	632,4514	636,7620	641,0752	645,3910	649,7096	654,0310	658,3552	662,6822	667,0121	671,3449
160	675,6807	680,0195	684,3613	688,7062	693,0543	697,4055	701,7599	706,1176	710,4786	714,8430
170	719,2107	7269,8253	2772,4049	2774,9646	2777,5058	2780,0301	2782,5387	2785,0327	2787,5130	2789,9806
180	2792,4362	2794,8805	2797,3142	2799,7379	2802,1521	2804,5572	2806,9537	2809,3420	2811,7223	2814,0952
190	2816,4608	2818,8194	2821,1713	2823,5168	2825,8560	2828,1891	2830,5164	2832,8380	2835,1541	2837,4648
200	2839,7704	2842,0709	2844,3665	2846,6573	2848,9435	2851,2251	2853,5022	2855,7751	2858,0438	2860,3083
210	2862,5688	2864,8255	2867,0782	2869,3273	2871,5727	2873,8145	2876,0528	2878,2878	2880,5193	2882,7477
220	2884,9728	2887,1948	2889,4138	2891,6298	2893,8429	2896,0531	2898,2605	2900,4653	2902,6673	2904,8667

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 0,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,8741	5,0879	9,2985	13,5062	17,7113	21,9140	26,1145	30,3129	34,5094	38,7041
10	42,8973	47,0890	51,2794	55,4685	59,6565	63,8434	68,0293	72,2142	76,3984	80,5818
20	84,7644	88,9464	93,1278	97,3086	101,4889	105,6687	109,8481	114,0271	118,2057	122,3840
30	126,5620	130,7397	134,9172	139,0945	143,2716	147,4486	151,6254	155,8022	159,9789	164,1555
40	168,3321	172,5087	176,6853	180,8619	185,0387	189,2155	193,3924	197,5695	201,7467	205,9241
50	210,1017	214,2795	218,4576	222,6359	226,8145	230,9935	235,1727	239,3523	243,5323	247,7126
60	251,8934	256,0746	260,2563	264,4384	268,6210	272,8042	276,9879	281,1721	285,3569	289,5423
70	293,7284	297,9150	302,1024	306,2904	310,4791	314,6685	318,8587	323,0496	327,2414	331,4339
80	335,6272	339,8214	344,0165	348,2124	352,4093	356,6070	360,8058	365,0055	369,2061	373,4078
90	377,6105	381,8143	386,0192	390,2251	394,4321	398,6403	402,8497	407,0602	411,2719	415,4848
100	419,6990	423,9145	428,1312	432,3492	436,5686	440,7893	445,0114	449,2349	453,4598	457,6861
110	461,9139	466,1432	470,3740	474,6063	478,8402	483,0757	487,3127	491,5514	495,7918	500,0338
120	504,2775	508,5230	512,7702	517,0191	521,2699	525,5225	529,7770	534,0333	538,2915	542,5517
130	546,8139	551,0780	555,3441	559,6123	563,8826	568,1549	572,4294	576,7060	580,9849	585,2659
140	589,5493	593,8348	598,1227	602,4130	606,7056	611,0007	615,2981	619,5981	623,9006	628,2056
150	632,5132	636,8234	641,1362	645,4518	649,7701	654,0911	658,4149	662,7416	667,0712	671,4036
160	675,7390	680,0775	684,4189	688,7635	693,1112	697,4620	701,8160	706,1734	710,5340	714,8979
170	719,2653	723,6361	728,0104	732,3882	736,7696	741,1547	2774,7409	2777,3742	2779,9859	2782,5777
180	2785,1510	2787,7074	2790,2478	2792,7736	2795,2855	2797,7844	2800,2712	2802,7464	2805,2108	2807,6649
190	2810,1093	2812,5443	2814,9704	2817,3880	2819,7974	2822,1991	2824,5932	2826,9800	2829,3598	2831,7329
200	2834,0995	2836,4597	2838,8138	2841,1620	2843,5044	2845,8412	2848,1725	2850,4985	2852,8193	2855,1352
210	2857,4461	2859,7522	2862,0537	2864,3506	2866,6430	2868,9311	2871,2150	2873,4948	2875,7705	2878,0422
220	2880,3101	2882,5742	2884,8346	2887,0914	2889,3447	2891,5945	2893,8409	2896,0840	2898,3239	2900,5606

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	0,9758	5,1891	9,3993	13,6066	17,8112	22,0135	26,2135	30,4115	34,6076	38,8020
10	42,9948	47,1861	51,3761	55,5649	59,7525	63,9390	68,1246	72,3092	76,4931	80,6761
20	84,8585	89,0402	93,2212	97,4017	101,5818	105,7613	109,9404	114,1191	118,2974	122,4754
30	126,6532	130,8306	135,0079	139,1849	143,3617	147,5385	151,7150	155,8915	160,0679	164,2443
40	168,4207	172,5970	176,7734	180,9498	185,1263	189,3029	193,4796	197,6564	201,8334	206,0105
50	210,1879	214,3655	218,5433	222,7214	226,8998	231,0785	235,2576	239,4369	243,6167	247,7968
60	251,9774	256,1584	260,3398	264,5217	268,7041	272,8871	277,0705	281,2545	285,4391	289,6243
70	293,8101	297,9966	302,1837	306,3715	310,5600	314,7492	318,9392	323,1299	327,3214	331,5137
80	335,7068	339,9008	344,0956	348,2914	352,4880	356,6855	360,8840	365,0835	369,2840	373,4854
90	377,6879	381,8915	386,0961	390,3018	394,5086	398,7166	402,9257	407,1360	411,3475	415,5602
100	419,7742	423,9894	428,2059	432,4237	436,6428	440,8633	445,0851	449,3084	453,5330	457,7591
110	461,9867	466,2157	470,4463	474,6784	478,9120	483,1472	487,3841	491,6225	495,8626	500,1044
120	504,3478	508,5930	512,8400	517,0887	521,3392	525,5915	529,8457	534,1018	538,3598	542,6197
130	546,8815	551,1454	555,4113	559,6792	563,9491	568,2212	572,4954	576,7718	581,0503	585,3311
140	589,6141	593,8994	598,1870	602,4769	606,7693	611,0640	615,3612	619,6608	623,9630	628,2676
150	632,5749	636,8848	641,1973	645,5125	649,8305	654,1512	658,4747	662,8010	667,1302	671,4623
160	675,7974	680,1355	684,4766	688,8207	693,1680	697,5185	701,8722	706,2291	710,5893	714,9529
170	719,3198	723,6902	728,0641	732,4415	736,8225	741,2072	745,5955	749,9875	754,3834	758,7831
180	2777,4299	2780,1289	2782,8036	2785,4559	2788,0876	2790,7002	2793,2950	2795,8734	2798,4364	2800,9849
190	2803,5199	2806,0422	2808,5525	2811,0513	2813,5394	2816,0172	2818,4852	2820,9439	2823,3936	2825,8347
200	2828,2675	2830,6925	2833,1097	2835,5196	2837,9224	2840,3183	2842,7074	2845,0901	2847,4665	2849,8368
210	2852,2012	2854,5597	2856,9127	2859,2602	2861,6023	2863,9392	2866,2711	2868,5980	2870,9201	2873,2374
220	2875,5502	2877,8584	2880,1622	2882,4618	2884,7571	2887,0483	2889,3355	2891,6188	2893,8982	2896,1739

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,1 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,0775	5,2903	9,5000	13,7069	17,9111	22,1129	26,3125	30,5101	34,7058	38,8998
10	43,0922	47,2832	51,4728	55,6612	59,8484	64,0347	68,2199	72,4042	76,5877	80,7705
20	84,9525	89,1339	93,3146	97,4949	101,6746	105,8538	110,0326	114,2111	118,3891	122,5669
30	126,7443	130,9215	135,0985	139,2753	143,4518	147,6283	151,8046	155,9809	160,1570	164,3331
40	168,5092	172,6853	176,8615	181,0376	185,2139	189,3902	193,5667	197,7433	201,9201	206,0970
50	210,2741	214,4515	218,6291	222,8070	226,9851	231,1636	235,3424	239,5216	243,7011	247,8810
60	252,0613	256,2421	260,4233	264,6050	268,7872	272,9699	277,1532	281,3370	285,5213	289,7063
70	293,8919	298,0781	302,2650	306,4526	310,6409	314,8299	319,0196	323,2101	327,4014	331,5935
80	335,7864	339,9802	344,1748	348,3703	352,5667	356,7640	360,9623	365,1616	369,3618	373,5630
90	377,7653	381,9686	386,1730	390,3785	394,5851	398,7929	403,0018	407,2118	411,4231	415,6356
100	419,8493	424,0643	428,2805	432,4981	436,7170	440,9372	445,1589	449,3819	453,6063	457,8322
110	462,0595	466,2883	470,5186	474,7504	478,9838	483,2188	487,4554	491,6936	495,9334	500,1749
120	504,4182	508,6631	512,9098	517,1582	521,4085	525,6606	529,9145	534,1703	538,4280	542,6876
130	546,9492	551,2128	555,4784	559,7460	564,0157	568,2875	572,5614	576,8375	581,1158	585,3962
140	589,6789	593,9639	598,2512	602,5409	606,8329	611,1273	615,4242	619,7235	624,0254	628,3297
150	632,6367	636,9462	641,2584	645,5733	649,8909	654,2113	658,5344	662,8604	667,1893	671,5210
160	675,8558	680,1935	684,5342	688,8780	693,2249	697,5750	701,9283	706,2849	710,6447	715,0079
170	719,3744	723,7444	728,1179	732,4949	736,8755	741,2597	745,6476	750,0392	754,4346	758,8339
180	763,2370	767,6441	772,0552	776,4704	780,8897	2783,2300	2785,9594	2788,6645	2791,3472	2794,0092
190	2796,6520	2799,2771	2801,8854	2804,4782	2807,0564	2809,6208	2812,1723	2814,7115	2817,2390	2819,7555
200	2822,2615	2824,7574	2827,2437	2829,7207	2832,1889	2834,6486	2837,1000	2839,5436	2841,9794	2844,4079
210	2846,8292	2849,2436	2851,6512	2854,0523	2856,4470	2858,8355	2861,2180	2863,5946	2865,9655	2868,3308
220	2870,6907	2873,0453	2875,3947	2877,7390	2880,0784	2882,4130	2884,7428	2887,0681	2889,3888	2891,7052

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,2 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,1792	5,3916	9,6008	13,8071	18,0109	22,2123	26,4115	30,6086	34,8039	38,9976
10	43,1896	47,3802	51,5695	55,7575	59,9444	64,1303	68,3152	72,4992	76,6824	80,8648
20	85,0465	89,2276	93,4081	97,5880	101,7674	105,9464	110,1249	114,3030	118,4808	122,6583
30	126,8355	131,0124	135,1891	139,3656	143,5419	147,7181	151,8942	156,0702	160,2461	164,4220
40	168,5978	172,7737	176,9496	181,1255	185,3015	189,4776	193,6538	197,8302	202,0067	206,1834
50	210,3603	214,5375	218,7149	222,8925	227,0704	231,2487	235,4273	239,6062	243,7855	247,9652
60	252,1453	256,3258	260,5068	264,6883	268,8703	273,0528	277,2358	281,4194	285,6035	289,7883
70	293,9737	298,1597	302,3464	306,5337	310,7218	314,9106	319,1001	323,2904	327,4814	331,6733
80	335,8660	340,0595	344,2539	348,4492	352,6454	356,8425	361,0406	365,2396	369,4396	373,6407
90	377,8427	382,0458	386,2500	390,4553	394,6616	398,8691	403,0778	407,2876	411,4987	415,7109
100	419,9244	424,1392	428,3552	432,5725	436,7912	441,0112	445,2326	449,4554	453,6796	457,9052
110	462,1323	466,3608	470,5909	474,8225	479,0557	483,2904	487,5267	491,7647	496,0043	500,2455
120	504,4885	508,7332	512,9796	517,2278	521,4778	525,7296	529,9833	534,2388	538,4962	542,7556
130	547,0169	551,2802	555,5455	559,8129	564,0823	568,3538	572,6274	576,9032	581,1812	585,4614
140	589,7438	594,0285	598,3155	602,6049	606,8966	611,1907	615,4872	619,7863	624,0878	628,3918
150	632,6985	637,0077	641,3196	645,6341	649,9514	654,2714	658,5942	662,9199	667,2484	671,5798
160	675,9141	680,2515	684,5919	688,9353	693,2819	697,6316	701,9845	706,3406	710,7001	715,0629
170	719,4290	723,7986	728,1717	732,5483	736,9284	741,3122	745,6997	750,0909	754,4859	758,8847
180	763,2874	767,6940	772,1047	776,5194	780,9382	785,3612	789,7884	794,2199	2783,8688	2786,6719
190	2789,4472	2792,1970	2794,9233	2797,6278	2800,3121	2802,9777	2805,6256	2808,2572	2810,8734	2813,4751
200	2816,0631	2818,6382	2821,2010	2823,7521	2826,2921	2828,8214	2831,3407	2833,8501	2836,3502	2838,8413
210	2841,3238	2843,7978	2846,2638	2848,7220	2851,1725	2853,6157	2856,0518	2858,4810	2860,9034	2863,3193
220	2865,7288	2868,1322	2870,5294	2872,9208	2875,3064	2877,6864	2880,0609	2882,4300	2884,7940	2887,1528

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,2809	5,4928	9,7015	13,9074	18,1107	22,3117	26,5104	30,7072	34,9021	39,0953
10	43,2870	47,4772	51,6661	55,8538	60,0404	64,2259	68,4105	72,5941	76,7770	80,9591
20	85,1405	89,3213	93,5015	97,6811	101,8602	106,0389	110,2171	114,3950	118,5725	122,7497
30	126,9266	131,1033	135,2797	139,4559	143,6320	147,8080	151,9838	156,1595	160,3352	164,5108
40	168,6864	172,8620	177,0377	181,2134	185,3891	189,5650	193,7410	197,9171	202,0934	206,2699
50	210,4466	214,6235	218,8006	222,9780	227,1557	231,3338	235,5121	239,6908	243,8699	248,0494
60	252,2293	256,4096	260,5904	264,7716	268,9534	273,1356	277,3184	281,5018	285,6857	289,8703
70	294,0554	298,2412	302,4277	306,6148	310,8027	314,9912	319,1805	323,3706	327,5615	331,7531
80	335,9456	340,1389	344,3331	348,5282	352,7241	356,9210	361,1189	365,3177	369,5175	373,7183
90	377,9201	382,1230	386,3269	390,5320	394,7381	398,9454	403,1539	407,3635	411,5743	415,7863
100	419,9996	424,2141	428,4299	432,6470	436,8654	441,0852	445,3064	449,5289	453,7528	457,9782
110	462,2051	466,4334	470,6632	474,8946	479,1275	483,3620	487,5981	491,8358	496,0751	500,3161
120	504,5588	508,8032	513,0494	517,2974	521,5471	525,7986	530,0520	534,3073	538,5645	542,8236
130	547,0846	551,3477	555,6127	559,8798	564,1489	568,4201	572,6935	576,9690	581,2467	585,5266
140	589,8087	594,0931	598,3798	602,6688	606,9602	611,2541	615,5503	619,8490	624,1502	628,4539
150	632,7602	637,0692	641,3807	645,6949	650,0119	654,3315	658,6540	662,9793	667,3075	671,6385
160	675,9725	680,3095	684,6495	688,9926	693,3388	697,6881	702,0407	706,3964	710,7555	715,1179
170	719,4836	723,8528	728,2255	732,6017	736,9814	741,3648	745,7518	750,1426	754,5371	758,9355
180	763,3378	767,7440	772,1541	776,5684	780,9867	785,4092	789,8360	794,2670	798,7024	803,1422
190	807,5865	812,0354	2787,6018	2790,4431	2793,2561	2796,0428	2798,8054	2801,5457	2804,2651	2806,9652
200	2809,6473	2812,3124	2814,9616	2817,5958	2820,2158	2822,8225	2825,4164	2827,9982	2830,5684	2833,1276
210	2835,6762	2838,2147	2840,7434	2843,2628	2845,7731	2848,2747	2850,7678	2853,2528	2855,7298	2858,1992
220	2860,6611	2863,1158	2865,5635	2868,0043	2870,4384	2872,8661	2875,2874	2877,7025	2880,1116	2882,5148

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,3826	5,5939	9,8022	14,0077	18,2106	22,4111	26,6094	30,8058	35,0003	39,1931
10	43,3844	47,5742	51,7628	55,9501	60,1363	64,3215	68,5058	72,6891	76,8716	81,0534
20	85,2345	89,4150	93,5949	97,7742	101,9530	106,1314	110,3094	114,4869	118,6642	122,8411
30	127,0177	131,1941	135,3703	139,5463	143,7221	147,8978	152,0733	156,2488	160,4242	164,5996
40	168,7750	172,9503	177,1258	181,3012	185,4767	189,6524	193,8281	198,0040	202,1801	206,3563
50	210,5328	214,7094	218,8864	223,0636	227,2410	231,4188	235,5970	239,7754	243,9543	248,1336
60	252,3132	256,4933	260,6739	264,8549	269,0364	273,2185	277,4011	281,5842	285,7679	289,9523
70	294,1372	298,3228	302,5090	306,6960	310,8836	315,0719	319,2610	323,4509	327,6415	331,8329
80	336,0252	340,2183	344,4122	348,6071	352,8028	356,9995	361,1971	365,3957	369,5953	373,7959
90	377,9975	382,2002	386,4039	390,6087	394,8146	399,0217	403,2299	407,4393	411,6499	415,8617
100	420,0747	424,2890	428,5046	432,7214	436,9396	441,1592	445,3801	449,6024	453,8261	458,0513
110	462,2779	466,5060	470,7356	474,9667	479,1993	483,4336	487,6694	491,9068	496,1459	500,3867
120	504,6292	508,8733	513,1192	517,3669	521,6164	525,8677	530,1208	534,3758	538,6327	542,8916
130	547,1523	551,4151	555,6799	559,9467	564,2155	568,4865	572,7595	577,0347	581,3121	585,5917
140	589,8736	594,1577	598,4441	602,7328	607,0239	611,3174	615,6134	619,9118	624,2126	628,5161
150	632,8220	637,1306	641,4419	645,7557	650,0723	654,3917	658,7138	663,0388	667,3666	671,6973
160	676,0309	680,3676	684,7072	689,0499	693,3957	697,7447	702,0969	706,4522	710,8109	715,1729
170	719,5383	723,9071	728,2793	732,6551	737,0344	741,4174	745,8040	750,1943	754,5884	758,9864
180	763,3882	767,7939	772,2036	776,6174	781,0353	785,4573	789,8836	794,3142	798,7491	803,1884
190	807,6321	812,0805	816,5334	820,9910	825,4533	829,9205	2791,6571	2794,5284	2797,3712	2800,1877
200	2802,9800	2805,7497	2808,4985	2811,2277	2813,9386	2816,6323	2819,3098	2821,9721	2824,6199	2827,2541
210	2829,8752	2832,4840	2835,0808	2837,6664	2840,2411	2842,8054	2845,3596	2847,9042	2850,4394	2852,9657
220	2855,4832	2857,9923	2860,4932	2862,9861	2865,4714	2867,9491	2870,4196	2872,8829	2875,3394	2877,7891

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,5 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,4842	5,6951	9,9029	14,1079	18,3104	22,5104	26,7084	30,9043	35,0984	39,2909
10	43,4818	47,6713	51,8594	56,0464	60,2323	64,4171	68,6010	72,7840	76,9663	81,1477
20	85,3285	89,5087	93,6882	97,8673	102,0458	106,2239	110,4016	114,5789	118,7558	122,9325
30	127,1089	131,2850	135,4609	139,6366	143,8122	147,9876	152,1629	156,3381	160,5133	164,6884
40	168,8635	173,0387	177,2138	181,3891	185,5643	189,7397	193,9153	198,0909	202,2667	206,4427
50	210,6190	214,7954	218,9721	223,1491	227,3263	231,5039	235,6818	239,8601	244,0387	248,2177
60	252,3972	256,5771	260,7574	264,9382	269,1195	273,3013	277,4837	281,6666	285,8501	290,0342
70	294,2190	298,4043	302,5904	306,7771	310,9645	315,1526	319,3415	323,5311	327,7215	331,9127
80	336,1048	340,2976	344,4914	348,6860	352,8816	357,0780	361,2754	365,4738	369,6731	373,8735
90	378,0749	382,2773	386,4808	390,6854	394,8911	399,0980	403,3060	407,5151	411,7255	415,9370
100	420,1499	424,3639	428,5793	432,7959	437,0139	441,2332	445,4539	449,6759	453,8994	458,1243
110	462,3507	466,5785	470,8079	475,0387	479,2712	483,5052	487,7407	491,9779	496,2168	500,4573
120	504,6995	508,9434	513,1891	517,4365	521,6857	525,9367	530,1896	534,4444	538,7010	542,9596
130	547,2201	551,4825	555,7470	560,0135	564,2821	568,5528	572,8256	577,1005	581,3776	585,6569
140	589,9385	594,2223	598,5084	602,7968	607,0876	611,3808	615,6764	619,9745	624,2751	628,5782
150	632,8839	637,1921	641,5030	645,8166	650,1328	654,4519	658,7736	663,0982	667,4257	671,7561
160	676,0894	680,4256	684,7649	689,1073	693,4527	697,8013	702,1531	706,5081	710,8664	715,2280
170	719,5929	723,9613	728,3332	732,7085	737,0875	741,4700	745,8562	750,2461	754,6398	759,0373
180	763,4386	767,8439	772,2532	776,6665	781,0839	785,5055	789,9312	794,3613	798,7957	803,2345
190	807,6778	812,1256	816,5780	821,0351	825,4969	829,9635	834,4349	838,9114	843,3928	2793,0912
200	2796,0156	2798,9096	2801,7756	2804,6156	2807,4317	2810,2253	2812,9982	2815,7515	2818,4865	2821,2044
210	2823,9060	2826,5923	2829,2641	2831,9220	2834,5668	2837,1990	2839,8192	2842,4279	2845,0256	2847,6126
220	2850,1894	2852,7564	2855,3138	2857,8620	2860,4013	2862,9319	2865,4541	2867,9682	2870,4744	2872,9729

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,6 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,5859	5,7963	10,0036	14,2081	18,4101	22,6098	26,8073	31,0028	35,1965	39,3886
10	43,5791	47,7682	51,9561	56,1427	60,3282	64,5127	68,6963	72,8790	77,0609	81,2420
20	85,4225	89,6024	93,7816	97,9604	102,1386	106,3164	110,4938	114,6708	118,8475	123,0239
30	127,2000	131,3758	135,5515	139,7269	143,9022	148,0774	152,2525	156,4274	160,6024	164,7772
40	168,9521	173,1270	177,3019	181,4769	185,6519	189,8271	194,0024	198,1778	202,3534	206,5292
50	210,7052	214,8814	219,0579	223,2346	227,4116	231,5890	235,7667	239,9447	244,1231	248,3019
60	252,4811	256,6608	260,8409	265,0215	269,2026	273,3842	277,5663	281,7491	285,9323	290,1162
70	294,3007	298,4859	302,6717	306,8582	311,0454	315,2333	319,4219	323,6113	327,8015	331,9925
80	336,1844	340,3770	344,5706	348,7650	352,9603	357,1565	361,3537	365,5519	369,7510	373,9511
90	378,1523	382,3545	386,5578	390,7622	394,9676	399,1743	403,3820	407,5910	411,8011	416,0124
100	420,2250	424,4388	428,6539	432,8704	437,0881	441,3072	445,5276	449,7495	453,9727	458,1974
110	462,4235	466,6511	470,8802	475,1108	479,3430	483,5768	487,8121	492,0490	496,2876	500,5279
120	504,7699	509,0135	513,2589	517,5061	521,7550	526,0058	530,2584	534,5129	538,7693	543,0276
130	547,2878	551,5500	555,8142	560,0805	564,3488	568,6191	572,8916	577,1663	581,4431	585,7221
140	590,0034	594,2869	598,5727	602,8608	607,1513	611,4442	615,7395	620,0373	624,3376	628,6403
150	632,9457	637,2536	641,5642	645,8774	650,1934	654,5120	658,8335	663,1577	667,4849	671,8149
160	676,1478	680,4837	684,8226	689,1646	693,5097	697,8579	702,2093	706,5639	710,9218	715,2831
170	719,6476	724,0156	728,3871	732,7620	737,1405	741,5226	745,9084	750,2979	754,6911	759,0882
180	763,4891	767,8939	772,3027	776,7156	781,1325	785,5536	789,9789	794,4085	798,8424	803,2807
190	807,7235	812,1708	816,6226	821,0792	825,5404	830,0065	834,4774	838,9533	843,4342	847,9202
200	852,4113	856,9077	2794,7453	2797,7173	2800,6574	2803,5680	2806,4514	2809,3096	2812,1443	2814,9571
210	2817,7494	2820,5226	2823,2776	2826,0157	2828,7376	2831,4442	2834,1364	2836,8147	2839,4799	2842,1325
220	2844,7729	2847,4018	2850,0196	2852,6266	2855,2233	2857,8100	2860,3870	2862,9546	2865,5132	2868,0630

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,6875	5,8974	10,1043	14,3084	18,5099	22,7091	26,9062	31,1013	35,2947	39,4863
10	43,6765	47,8652	52,0527	56,2390	60,4241	64,6083	68,7915	72,9739	77,1555	81,3363
20	85,5165	89,6960	93,8750	98,0534	102,2314	106,4089	110,5860	114,7628	118,9392	123,1153
30	127,2911	131,4667	135,6421	139,8173	143,9923	148,1672	152,3420	156,5167	160,6914	164,8660
40	169,0407	173,2153	177,3900	181,5647	185,7395	189,9145	194,0895	198,2647	202,4401	206,6156
50	210,7914	214,9674	219,1436	223,3201	227,4969	231,6740	235,8515	240,0293	244,2075	248,3861
60	252,5651	256,7445	260,9244	265,1048	269,2857	273,4670	277,6490	281,8315	286,0145	290,1982
70	294,3825	298,5674	302,7530	306,9393	311,1263	315,3140	319,5024	323,6916	327,8816	332,0723
80	336,2639	340,4564	344,6497	348,8439	353,0390	357,2350	361,4320	365,6299	369,8288	374,0287
90	378,2297	382,4317	386,6347	390,8389	395,0442	399,2505	403,4581	407,6668	411,8767	416,0878
100	420,3002	424,5138	428,7286	432,9448	437,1623	441,3812	445,6014	449,8230	454,0460	458,2704
110	462,4963	466,7237	470,9525	475,1829	479,4149	483,6484	487,8835	492,1202	496,3585	500,5985
120	504,8402	509,0836	513,3288	517,5757	521,8244	526,0749	530,3272	534,5814	538,8375	543,0956
130	547,3555	551,6175	555,8814	560,1474	564,4154	568,6855	572,9577	577,2321	581,5086	585,7873
140	590,0683	594,3515	598,6370	602,9249	607,2150	611,5076	615,8026	620,1001	624,4000	628,7025
150	633,0075	637,3151	641,6254	645,9383	650,2539	654,5722	658,8933	663,2173	667,5440	671,8737
160	676,2063	680,5418	684,8804	689,2220	693,5667	697,9145	702,2656	706,6198	710,9773	715,3381
170	719,7023	724,0699	728,4410	732,8155	737,1936	741,5753	745,9606	750,3497	754,7425	759,1391
180	763,5396	767,9439	772,3523	776,7647	781,1812	785,6018	790,0266	794,4557	798,8891	803,3269
190	807,7692	812,2160	816,6673	821,1233	825,5841	830,0496	834,5200	838,9953	843,4756	847,9610
200	852,4515	856,9473	861,4484	865,9549	870,4669	2796,6169	2799,6309	2802,6119	2805,5624	2808,4847
210	2811,3809	2814,2527	2817,1018	2819,9297	2822,7376	2825,5268	2828,2983	2831,0530	2833,7919	2836,5157
220	2839,2251	2841,9208	2844,6034	2847,2735	2849,9315	2852,5779	2855,2131	2857,8375	2860,4515	2863,0555

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,7891	5,9985	10,2049	14,4086	18,6097	22,8085	27,0051	31,1998	35,3928	39,5841
10	43,7738	47,9622	52,1493	56,3352	60,5200	64,7039	68,8868	73,0688	77,2501	81,4306
20	85,6105	89,7897	93,9684	98,1465	102,3242	106,5014	110,6782	114,8547	119,0308	123,2066
30	127,3822	131,5575	135,7326	139,9076	144,0824	148,2570	152,4316	156,6060	160,7805	164,9548
40	169,1292	173,3036	177,4781	181,6526	185,8271	190,0018	194,1766	198,3516	202,5267	206,7020
50	210,8776	215,0533	219,2293	223,4056	227,5822	231,7591	235,9363	240,1139	244,2919	248,4702
60	252,6490	256,8282	261,0079	265,1881	269,3687	273,5499	277,7316	281,9139	286,0967	290,2802
70	294,4643	298,6490	302,8343	307,0204	311,2072	315,3946	319,5828	323,7718	327,9616	332,1522
80	336,3435	340,5358	344,7289	348,9228	353,1177	357,3135	361,5103	365,7080	369,9067	374,1064
90	378,3071	382,5089	386,7117	390,9156	395,1207	399,3268	403,5341	407,7426	411,9523	416,1632
100	420,3753	424,5887	428,8033	433,0193	437,2366	441,4552	445,6752	449,8965	454,1193	458,3435
110	462,5691	466,7963	471,0249	475,2550	479,4867	483,7200	487,9548	492,1913	496,4294	500,6691
120	504,9106	509,1537	513,3986	517,6453	521,8937	526,1440	530,3960	534,6500	538,9058	543,1636
130	547,4233	551,6849	555,9486	560,2143	564,4820	568,7519	573,0238	577,2979	581,5741	585,8525
140	590,1332	594,4161	598,7013	602,9889	607,2788	611,5711	615,8658	620,1629	624,4625	628,7647
150	633,0694	637,3767	641,6866	645,9992	650,3144	654,6324	658,9532	663,2768	667,6032	671,9325
160	676,2647	680,5999	684,9381	689,2794	693,6237	697,9712	702,3218	706,6757	711,0328	715,3933
170	719,7571	724,1242	728,4949	732,8690	737,2467	741,6280	746,0129	750,4015	754,7939	759,1900
180	763,5901	767,9940	772,4019	776,8138	781,2298	785,6500	790,0743	794,5029	798,9359	803,3732
190	807,8149	812,2612	816,7120	821,1675	825,6277	830,0927	834,5625	839,0373	843,5170	848,0018
200	852,4918	856,9870	861,4875	865,9934	870,5047	875,0216	879,5442	884,0724	2798,7016	2801,7522
210	2804,7690	2807,7547	2810,7115	2813,6416	2816,5467	2819,4285	2822,2886	2825,1281	2827,9483	2830,7504
220	2833,5351	2836,3036	2839,0565	2841,7946	2844,5185	2847,2290	2849,9264	2852,6114	2855,2843	2857,9458

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 1,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,8907	6,0996	10,3056	14,5088	18,7094	22,9078	27,1040	31,2983	35,4909	39,6818
10	43,8712	48,0592	52,2459	56,4315	60,6160	64,7994	68,9820	73,1637	77,3447	81,5249
20	85,7044	89,8833	94,0617	98,2396	102,4169	106,5939	110,7704	114,9466	119,1225	123,2980
30	127,4733	131,6484	135,8232	139,9979	144,1724	148,3468	152,5211	156,6953	160,8695	165,0436
40	169,2178	173,3919	177,5661	181,7404	185,9147	190,0892	194,2637	198,4385	202,6134	206,7885
50	210,9637	215,1393	219,3151	223,4911	227,6675	231,8442	236,0212	240,1985	244,3763	248,5544
60	252,7330	256,9120	261,0914	265,2714	269,4518	273,6327	277,8142	281,9963	286,1789	290,3622
70	294,5460	298,7305	302,9157	307,1015	311,2880	315,4753	319,6633	323,8521	328,0416	332,2320
80	336,4231	340,6151	344,8080	349,0018	353,1964	357,3920	361,5885	365,7860	369,9845	374,1840
90	378,3845	382,5860	386,7887	390,9924	395,1972	399,4031	403,6102	407,8185	412,0279	416,2386
100	420,4505	424,6636	428,8780	433,0938	437,3108	441,5292	445,7489	449,9701	454,1926	458,4165
110	462,6420	466,8688	471,0972	475,3271	479,5586	483,7916	488,0262	492,2624	496,5002	500,7398
120	504,9809	509,2238	513,4685	517,7149	521,9631	526,2130	530,4649	534,7185	538,9741	543,2316
130	547,4910	551,7524	556,0158	560,2812	564,5487	568,8182	573,0899	577,3637	581,6396	585,9178
140	590,1981	594,4808	598,7657	603,0529	607,3425	611,6345	615,9289	620,2257	624,5250	628,8269
150	633,1313	637,4382	641,7478	646,0601	650,3750	654,6927	659,0131	663,3363	667,6624	671,9914
160	676,3232	680,6581	684,9959	689,3368	693,6808	698,0279	702,3781	706,7316	711,0884	715,4484
170	719,8118	724,1786	728,5488	732,9225	737,2998	741,6807	746,0652	750,4534	754,8453	759,2410
180	763,6406	768,0441	772,4515	776,8630	781,2785	785,6982	790,1221	794,5502	798,9826	803,4194
190	807,8607	812,3064	816,7568	821,2117	825,6714	830,1358	834,6051	839,0793	843,5585	848,0427
200	852,5321	857,0267	861,5266	866,0319	870,5426	875,0589	879,5808	884,1084	888,6418	893,1811
210	2797,8744	2800,9934	2804,0754	2807,1233	2810,1398	2813,1270	2816,0870	2819,0218	2821,9329	2824,8217
220	2827,6898	2830,5381	2833,3679	2836,1801	2838,9756	2841,7551	2844,5195	2847,2694	2850,0054	2852,7281

Приложение Г. Удельная энтальпия (кДж/кг) как функция температуры при давлении 2,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	1,9923	6,2007	10,4062	14,6089	18,8091	23,0071	27,2029	31,3968	35,5890	39,7795
10	43,9685	48,1561	52,3425	56,5277	60,7118	64,8950	69,0772	73,2586	77,4392	81,6191
20	85,7984	89,9770	94,1551	98,3326	102,5097	106,6864	110,8626	115,0385	119,2141	123,3894
30	127,5644	131,7392	135,9138	140,0882	144,2625	148,4366	152,6106	156,7846	160,9585	165,1324
40	169,3063	173,4802	177,6542	181,8282	186,0023	190,1765	194,3509	198,5253	202,7000	206,8749
50	211,0499	215,2252	219,4008	223,5766	227,7528	231,9292	236,1060	240,2831	244,4607	248,6386
60	252,8169	256,9957	261,1749	265,3546	269,5349	273,7156	277,8969	282,0787	286,2611	290,4441
70	294,6278	298,8121	302,9970	307,1826	311,3689	315,5560	319,7438	323,9323	328,1216	332,3118
80	336,5027	340,6945	344,8872	349,0807	353,2752	357,4705	361,6668	365,8641	370,0624	374,2616
90	378,4619	382,6632	386,8656	391,0691	395,2737	399,4794	403,6863	407,8943	412,1035	416,3140
100	420,5256	424,7385	428,9527	433,1682	437,3850	441,6032	445,8227	450,0436	454,2659	458,4896
110	462,7148	466,9414	471,1696	475,3992	479,6304	483,8632	488,0976	492,3335	496,5711	500,8104
120	505,0513	509,2940	513,5383	517,7845	522,0324	526,2821	530,5337	534,7871	539,0424	543,2996
130	547,5588	551,8199	556,0830	560,3482	564,6153	568,8846	573,1560	577,4295	581,7051	585,9830
140	590,2631	594,5454	598,8300	603,1170	607,4063	611,6979	615,9920	620,2885	624,5875	628,8891
150	633,1931	637,4998	641,8090	646,1210	650,4356	654,7529	659,0730	663,3959	667,7216	672,0502
160	676,3817	680,7162	685,0537	689,3942	693,7378	698,0846	702,4344	706,7875	711,1439	715,5036
170	719,8666	724,2330	728,6028	732,9761	737,3530	741,7334	746,1175	750,5052	754,8967	759,2920
180	763,6912	768,0942	772,5012	776,9122	781,3273	785,7465	790,1699	794,5975	799,0294	803,4657
190	807,9065	812,3517	816,8015	821,2560	825,7151	830,1790	834,6477	839,1214	843,6000	848,0837
200	852,5725	857,0665	861,5658	866,0705	870,5806	875,0962	879,6175	884,1445	888,6772	893,2159
210	897,7605	902,3111	906,8679	2800,3398	2803,4854	2806,5940	2809,6686	2812,7116	2815,7253	2818,7117
220	2821,6726	2824,6097	2827,5243	2830,4179	2833,2916	2836,1465	2838,9835	2841,8035	2844,6074	2847,3958

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,1 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,0939	6,3018	10,5068	14,7091	18,9089	23,1064	27,3018	31,4953	35,6870	39,8771
10	44,0658	48,2531	52,4391	56,6239	60,8077	64,9905	69,1724	73,3535	77,5338	81,7134
20	85,8923	90,0706	94,2484	98,4257	102,6025	106,7788	110,9548	115,1304	119,3057	123,4807
30	127,6555	131,8300	136,0043	140,1785	144,3525	148,5264	152,7002	156,8739	161,0476	165,2212
40	169,3949	173,5685	177,7422	181,9160	186,0899	190,2639	194,4380	198,6122	202,7867	206,9613
50	211,1361	215,3112	219,4865	223,6621	227,8380	232,0143	236,1908	240,3677	244,5450	248,7227
60	252,9009	257,0794	261,2584	265,4379	269,6179	273,7984	277,9795	282,1611	286,3433	290,5261
70	294,7095	298,8936	303,0783	307,2637	311,4498	315,6367	319,8242	324,0126	328,2017	332,3916
80	336,5823	340,7739	344,9663	349,1597	353,3539	357,5490	361,7451	365,9422	370,1402	374,3392
90	378,5393	382,7404	386,9426	391,1458	395,3502	399,5557	403,7623	407,9702	412,1791	416,3894
100	420,6008	424,8135	429,0274	433,2427	437,4593	441,6772	445,8965	450,1171	454,3392	458,5627
110	462,7876	467,0140	471,2419	475,4714	479,7023	483,9348	488,1689	492,4047	496,6420	500,8810
120	505,1217	509,3641	513,6082	517,8541	522,1018	526,3512	530,6025	534,8557	539,1107	543,3677
130	547,6266	551,8874	556,1503	560,4151	564,6820	568,9510	573,2221	577,4953	581,7707	586,0482
140	590,3280	594,6101	598,8944	603,1810	607,4700	611,7614	616,0552	620,3514	624,6501	628,9513
150	633,2550	637,5613	641,8703	646,1819	650,4961	654,8131	659,1329	663,4554	667,7808	672,1091
160	676,4403	680,7744	685,1115	689,4517	693,7949	698,1413	702,4908	706,8435	711,1995	715,5587
170	719,9213	724,2873	728,6568	733,0297	737,4061	741,7861	746,1698	750,5571	754,9482	759,3431
180	763,7418	768,1443	772,5509	776,9614	781,3760	785,7948	790,2177	794,6448	799,0763	803,5121
190	807,9523	812,3971	816,8463	821,3002	825,7588	830,2222	834,6904	839,1635	843,6415	848,1246
200	852,6129	857,1063	861,6050	866,1091	870,6186	875,1336	879,6542	884,1806	888,7127	893,2506
210	897,7946	902,3445	906,9007	911,4630	916,0317	2799,7953	2803,0024	2806,1699	2809,3008	2812,3979
220	2815,4637	2818,5003	2821,5096	2824,4935	2827,4535	2830,3911	2833,3075	2836,2039	2839,0813	2841,9407

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,2 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,1954	6,4029	10,6074	14,8092	19,0086	23,2056	27,4006	31,5937	35,7851	39,9748
10	44,1631	48,3500	52,5356	56,7202	60,9036	65,0861	69,2676	73,4484	77,6283	81,8076
20	85,9862	90,1643	94,3417	98,5187	102,6952	106,8713	111,0470	115,2223	119,3973	123,5721
30	127,7466	131,9208	136,0949	140,2688	144,4425	148,6162	152,7897	156,9632	161,1366	165,3100
40	169,4834	173,6568	177,8303	182,0038	186,1775	190,3512	194,5251	198,6991	202,8733	207,0477
50	211,2223	215,3971	219,5723	223,7476	227,9233	232,0993	236,2757	240,4523	244,6294	248,8069
60	252,9848	257,1631	261,3419	265,5212	269,7010	273,8813	278,0621	282,2435	286,4255	290,6081
70	294,7913	298,9751	303,1596	307,3448	311,5307	315,7173	319,9047	324,0928	328,2817	332,4714
80	336,6619	340,8533	345,0455	349,2386	353,4326	357,6275	361,8234	366,0202	370,2181	374,4169
90	378,6167	382,8176	387,0196	391,2226	395,4267	399,6320	403,8384	408,0460	412,2548	416,4647
100	420,6760	424,8884	429,1022	433,3172	437,5335	441,7512	445,9703	450,1907	454,4125	458,6358
110	462,8605	467,0866	471,3143	475,5435	479,7742	484,0065	488,2403	492,4758	496,7129	500,9517
120	505,1921	509,4342	513,6781	517,9237	522,1711	526,4203	530,6714	534,9243	539,1790	543,4357
130	547,6943	551,9549	556,2175	560,4821	564,7487	569,0174	573,2882	577,5611	581,8362	586,1135
140	590,3930	594,6748	598,9588	603,2451	607,5338	611,8249	616,1183	620,4142	624,7126	629,0135
150	633,3169	637,6229	641,9315	646,2428	650,5567	654,8734	659,1928	663,5150	667,8401	672,1680
160	676,4988	680,8326	685,1693	689,5091	693,8520	698,1980	702,5471	706,8995	711,2550	715,6139
170	719,9761	724,3417	728,7108	733,0833	737,4593	741,8389	746,2221	750,6091	754,9997	759,3941
180	763,7924	768,1945	772,6006	777,0107	781,4248	785,8431	790,2655	794,6922	799,1231	803,5585
190	807,9982	812,4424	816,8912	821,3446	825,8026	830,2654	834,7331	839,2056	843,6831	848,1657
200	852,6533	857,1461	861,6443	866,1477	870,6566	875,1710	879,6910	884,2167	888,7481	893,2854
210	897,8287	902,3780	906,9334	911,4951	916,0631	920,6375	925,2184	929,8060	2802,6293	2805,8535
220	2809,0388	2812,1881	2815,3041	2818,3892	2821,4454	2824,4746	2827,4785	2830,4587	2833,4165	2836,3531

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,2969	6,5039	10,7080	14,9094	19,1083	23,3049	27,4995	31,6922	35,8831	40,0725
10	44,2604	48,4469	52,6322	56,8164	60,9995	65,1816	69,3628	73,5432	77,7229	81,9018
20	86,0802	90,2579	94,4350	98,6117	102,7879	106,9637	111,1391	115,3142	119,4889	123,6634
30	127,8376	132,0116	136,1854	140,3591	144,5326	148,7059	152,8792	157,0524	161,2256	165,3988
40	169,5719	173,7451	177,9183	182,0916	186,2650	190,4385	194,6122	198,7860	202,9599	207,1341
50	211,3085	215,4831	219,6580	223,8331	228,0086	232,1844	236,3605	240,5369	244,7138	248,8911
60	253,0687	257,2469	261,4254	265,6045	269,7840	273,9641	278,1448	282,3259	286,5077	290,6901
70	294,8731	299,0567	303,2410	307,4259	311,6116	315,7980	319,9852	324,1730	328,3617	332,5512
80	336,7415	340,9327	345,1247	349,3175	353,5113	357,7060	361,9017	366,0983	370,2959	374,4945
90	378,6941	382,8948	387,0965	391,2993	395,5033	399,7083	403,9145	408,1218	412,3304	416,5401
100	420,7511	424,9634	429,1769	433,3917	437,6078	441,8252	446,0440	450,2642	454,4858	458,7088
110	462,9333	467,1592	471,3867	475,6156	479,8461	484,0781	488,3117	492,5469	496,7838	501,0223
120	505,2625	509,5044	513,7480	517,9934	522,2405	526,4894	530,7402	534,9929	539,2474	543,5038
130	547,7621	552,0224	556,2847	560,5490	564,8154	569,0838	573,3543	577,6270	581,9018	586,1788
140	590,4580	594,7394	599,0232	603,3092	607,5976	611,8883	616,1815	620,4771	624,7752	629,0757
150	633,3788	637,6845	641,9928	646,3037	650,6174	654,9337	659,2528	663,5746	667,8993	672,2269
160	676,5574	680,8908	685,2272	689,5666	693,9091	698,2547	702,6035	706,9554	711,3106	715,6691
170	720,0310	724,3962	728,7648	733,1369	737,5125	741,8917	746,2745	750,6610	755,0512	759,4452
180	763,8430	768,2447	772,6503	777,0600	781,4736	785,8914	790,3134	794,7396	799,1700	803,6048
190	808,0441	812,4878	816,9360	821,3889	825,8464	830,3087	834,7758	839,2478	843,7247	848,2067
200	852,6938	857,1860	861,6835	866,1864	870,6947	875,2085	879,7278	884,2529	888,7837	893,3203
210	897,8629	902,4115	906,9662	911,5272	916,0945	920,6682	925,2484	929,8352	934,4288	939,0292
220	2802,3686	2805,6470	2808,8843	2812,0838	2815,2481	2818,3798	2821,4811	2824,5540	2827,6003	2830,6216

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,3984	6,6050	10,8086	15,0095	19,2079	23,4042	27,5983	31,7906	35,9812	40,1701
10	44,3576	48,5438	52,7287	56,9126	61,0953	65,2771	69,4580	73,6381	77,8174	81,9961
20	86,1741	90,3515	94,5284	98,7047	102,8807	107,0562	111,2313	115,4061	119,5806	123,7548
30	127,9287	132,1024	136,2760	140,4493	144,6226	148,7957	152,9687	157,1417	161,3146	165,4875
40	169,6604	173,8334	178,0064	182,1794	186,3526	190,5259	194,6993	198,8728	203,0466	207,2205
50	211,3947	215,5690	219,7437	223,9186	228,0939	232,2694	236,4453	240,6215	244,7982	248,9752
60	253,1527	257,3306	261,5089	265,6878	269,8671	274,0470	278,2274	282,4083	286,5899	290,7720
70	294,9548	299,1382	303,3223	307,5071	311,6925	315,8787	320,0656	324,2533	328,4418	332,6310
80	336,8211	341,0120	345,2038	349,3965	353,5901	357,7845	361,9800	366,1764	370,3738	374,5721
90	378,7715	382,9720	387,1735	391,3761	395,5798	399,7846	403,9906	408,1977	412,4060	416,6155
100	420,8263	425,0383	429,2516	433,4662	437,6820	441,8993	446,1178	450,3378	454,5592	458,7819
110	463,0062	467,2318	471,4590	475,6877	479,9180	484,1497	488,3831	492,6181	496,8547	501,0930
120	505,3329	509,5745	513,8179	518,0630	522,3099	526,5586	530,8091	535,0614	539,3157	543,5718
130	547,8299	552,0900	556,3520	560,6160	564,8821	569,1502	573,4205	577,6928	581,9673	586,2440
140	590,5230	594,8041	599,0876	603,3733	607,6614	611,9518	616,2447	620,5400	624,8377	629,1380
150	633,4408	637,7461	642,0541	646,3647	650,6780	654,9940	659,3127	663,6342	667,9586	672,2858
160	676,6159	680,9490	685,2850	689,6241	693,9662	698,3115	702,6599	707,0114	711,3663	715,7244
170	720,0858	724,4506	728,8188	733,1905	737,5657	741,9445	746,3269	750,7130	755,1027	759,4963
180	763,8937	768,2949	772,7001	777,1093	781,5225	785,9398	790,3613	794,7870	799,2169	803,6513
190	808,0900	812,5332	816,9809	821,4333	825,8903	830,3520	834,8186	839,2900	843,7664	848,2478
200	852,7343	857,2260	861,7229	866,2251	870,7328	875,2460	879,7647	884,2891	888,8192	893,3552
210	897,8971	902,4451	906,9991	911,5594	916,1259	920,6989	925,2783	929,8644	934,4572	939,0569
220	943,6634	948,2770	2802,2220	2805,5519	2808,8389	2812,0862	2815,2967	2818,4731	2821,6176	2824,7324

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,5 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,5000	6,7060	10,9091	15,1096	19,3076	23,5034	27,6971	31,8890	36,0792	40,2678
10	44,4549	48,6407	52,8253	57,0087	61,1911	65,3726	69,5532	73,7329	77,9120	82,0903
20	86,2680	90,4451	94,6217	98,7977	102,9734	107,1486	111,3234	115,4980	119,6722	123,8461
30	128,0198	132,1932	136,3665	140,5396	144,7126	148,8855	153,0582	157,2310	161,4036	165,5763
40	169,7490	173,9217	178,0944	182,2672	186,4402	190,6132	194,7864	198,9597	203,1332	207,3069
50	211,4808	215,6550	219,8294	224,0041	228,1791	232,3544	236,5301	240,7061	244,8826	249,0594
60	253,2366	257,4143	261,5924	265,7710	269,9502	274,1298	278,3100	282,4907	286,6721	290,8540
70	295,0366	299,2198	303,4036	307,5882	311,7734	315,9594	320,1461	324,3335	328,5218	332,7108
80	336,9007	341,0914	345,2830	349,4754	353,6688	357,8631	362,0583	366,2544	370,4516	374,6498
90	378,8490	383,0492	387,2505	391,4528	395,6563	399,8609	404,0666	408,2736	412,4817	416,6910
100	420,9015	425,1133	429,3263	433,5407	437,7563	441,9733	446,1916	450,4114	454,6325	458,8550
110	463,0790	467,3045	471,5314	475,7599	479,9898	484,2214	488,4545	492,6892	496,9256	501,1636
120	505,4033	509,6447	513,8878	518,1326	522,3793	526,6277	530,8779	535,1301	539,3840	543,6399
130	547,8977	552,1575	556,4192	560,6830	564,9488	569,2167	573,4866	577,7587	582,0329	586,3093
140	590,5880	594,8688	599,1520	603,4374	607,7252	612,0153	616,3079	620,6029	624,9003	629,2002
150	633,5027	637,8078	642,1154	646,4257	650,7386	655,0543	659,3727	663,6939	668,0179	672,3447
160	676,6745	681,0072	685,3429	689,6816	694,0234	698,3682	702,7163	707,0675	711,4219	715,7796
170	720,1407	724,5051	728,8729	733,2442	737,6190	741,9973	746,3793	750,7650	755,1543	759,5474
180	763,9443	768,3451	772,7499	777,1586	781,5713	785,9882	790,4092	794,8344	799,2639	803,6977
190	808,1360	812,5786	817,0259	821,4777	825,9342	830,3954	834,8614	839,3323	843,8081	848,2889
200	852,7748	857,2659	861,7622	866,2639	870,7709	875,2835	879,8016	884,3254	888,8548	893,3902
210	897,9314	902,4787	907,0320	911,5916	916,1574	920,7297	925,3084	929,8937	934,4858	939,0846
220	943,6904	948,3032	952,9232	957,5504	2802,1908	2805,5695	2808,9035	2812,1963	2815,4507	2818,6697

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,6 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,6014	6,8070	11,0097	15,2097	19,4073	23,6026	27,7960	31,9874	36,1772	40,3654
10	44,5522	48,7376	52,9218	57,1049	61,2870	65,4681	69,6483	73,8278	78,0065	82,1845
20	86,3619	90,5387	94,7150	98,8908	103,0661	107,2410	111,4156	115,5898	119,7637	123,9374
30	128,1108	132,2840	136,4570	140,6299	144,8026	148,9752	153,1477	157,3202	161,4926	165,6651
40	169,8375	174,0099	178,1825	182,3550	186,5277	190,7005	194,8735	199,0465	203,2198	207,3933
50	211,5670	215,7409	219,9151	224,0896	228,2644	232,4395	236,6149	240,7907	244,9669	249,1435
60	253,3205	257,4980	261,6759	265,8543	270,0332	274,2127	278,3926	282,5732	286,7543	290,9360
70	295,1183	299,3013	303,4849	307,6693	311,8543	316,0400	320,2265	324,4138	328,6018	332,7906
80	336,9803	341,1708	345,3621	349,5544	353,7475	357,9416	362,1366	366,3325	370,5295	374,7274
90	378,9264	383,1264	387,3274	391,5296	395,7328	399,9372	404,1427	408,3494	412,5573	416,7664
100	420,9767	425,1882	429,4010	433,6151	437,8306	442,0473	446,2654	450,4849	454,7058	458,9281
110	463,1519	467,3771	471,6038	475,8320	480,0617	484,2930	488,5259	492,7604	496,9965	501,2343
120	505,4737	509,7148	513,9577	518,2023	522,4487	526,6968	530,9468	535,1987	539,4524	543,7080
130	547,9655	552,2250	556,4865	560,7500	565,0155	569,2831	573,5528	577,8246	582,0985	586,3746
140	590,6530	594,9335	599,2164	603,5015	607,7890	612,0789	616,3711	620,6658	624,9629	629,2625
150	633,5647	637,8694	642,1767	646,4867	650,7993	655,1146	659,4327	663,7535	668,0772	672,4037
160	676,7331	681,0655	685,4008	689,7391	694,0805	698,4250	702,7727	707,1235	711,4776	715,8349
170	720,1955	724,5596	728,9270	733,2979	737,6723	742,0502	746,4318	750,8170	755,2059	759,5986
180	763,9951	768,3954	772,7997	777,2079	781,6202	786,0366	790,4571	794,8819	799,3109	803,7442
190	808,1819	812,6241	817,0708	821,5221	825,9781	830,4387	834,9042	839,3745	843,8498	848,3301
200	852,8154	857,3059	861,8016	866,3027	870,8091	875,3211	879,8385	884,3617	888,8905	893,4252
210	897,9657	902,5123	907,0650	911,6238	916,1890	920,7605	925,3385	929,9231	934,5143	939,1124
220	943,7174	948,3294	952,9486	957,5750	962,2087	966,8500	971,4989	2805,7004	2809,0787	2812,4144

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,7029	6,9080	11,1102	15,3097	19,5069	23,7018	27,8948	32,0858	36,2752	40,4630
10	44,6494	48,8345	53,0183	57,2011	61,3828	65,5636	69,7435	73,9226	78,1010	82,2787
20	86,4558	90,6323	94,8083	98,9837	103,1588	107,3334	111,5077	115,6817	119,8553	124,0287
30	128,2019	132,3748	136,5475	140,7201	144,8926	149,0650	153,2372	157,4095	161,5816	165,7538
40	169,9260	174,0982	178,2705	182,4428	186,6153	190,7878	194,9605	199,1334	203,3064	207,4797
50	211,6532	215,8269	220,0008	224,1751	228,3496	232,5245	236,6997	240,8753	245,0513	249,2277
60	253,4045	257,5817	261,7594	265,9376	270,1163	274,2955	278,4752	282,6556	286,8365	291,0180
70	295,2001	299,3828	303,5663	307,7504	311,9352	316,1207	320,3070	324,4940	328,6818	332,8705
80	337,0599	341,2502	345,4413	349,6333	353,8262	358,0201	362,2149	366,4106	370,6073	374,8050
90	379,0038	383,2036	387,4044	391,6063	395,8094	400,0135	404,2188	408,4253	412,6329	416,8418
100	421,0518	425,2632	429,4758	433,6896	437,9048	442,1214	446,3392	450,5585	454,7791	459,0012
110	463,2247	467,4497	471,6762	475,9041	480,1336	484,3647	488,5973	492,8316	497,0674	501,3049
120	505,5441	509,7850	514,0276	518,2719	522,5181	526,7660	531,0157	535,2673	539,5207	543,7761
130	548,0333	552,2926	556,5538	560,8170	565,0822	569,3495	573,6189	577,8904	582,1641	586,4399
140	590,7180	594,9983	599,2808	603,5657	607,8528	612,1424	616,4343	620,7287	625,0255	629,3248
150	633,6266	637,9310	642,2380	646,5477	650,8599	655,1749	659,4927	663,8132	668,1365	672,4627
160	676,7917	681,1237	685,4587	689,7967	694,1377	698,4819	702,8291	707,1796	711,5332	715,8902
170	720,2504	724,6141	728,9811	733,3516	737,7256	742,1031	746,4842	750,8690	755,2575	759,6497
180	764,0458	768,4457	772,8495	777,2573	781,6691	786,0851	790,5051	794,9294	799,3579	803,7907
190	808,2280	812,6696	817,1158	821,5666	826,0220	830,4822	834,9471	839,4169	843,8916	848,3712
200	852,8560	857,3459	861,8411	866,3415	870,8474	875,3587	879,8755	884,3980	888,9262	893,4602
210	898,0001	902,5460	907,0980	911,6561	916,2206	920,7914	925,3686	929,9525	934,5430	939,1403
220	943,7445	948,3557	952,9740	957,5996	962,2325	966,8729	971,5210	976,1767	980,8403	2805,9447

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,8044	7,0090	11,2107	15,4098	19,6065	23,8010	27,9935	32,1842	36,3732	40,5606
10	44,7466	48,9313	53,1148	57,2972	61,4786	65,6591	69,8386	74,0174	78,1955	82,3729
20	86,5496	90,7259	94,9015	99,0767	103,2515	107,4259	111,5999	115,7735	119,9469	124,1200
30	128,2929	132,4656	136,6381	140,8104	144,9826	149,1547	153,3267	157,4987	161,6706	165,8426
40	170,0145	174,1865	178,3585	182,5306	186,7028	190,8752	195,0476	199,2203	203,3931	207,5661
50	211,7393	215,9128	220,0865	224,2606	228,4349	232,6096	236,7846	240,9599	245,1357	249,3118
60	253,4884	257,6654	261,8429	266,0209	270,1993	274,3783	278,5579	282,7380	286,9186	291,0999
70	295,2818	299,4644	303,6476	307,8315	312,0161	316,2014	320,3875	324,5743	328,7619	332,9503
80	337,1395	341,3295	345,5205	349,7123	353,9050	358,0986	362,2932	366,4887	370,6852	374,8827
90	379,0812	383,2808	387,4814	391,6831	395,8859	400,0898	404,2949	408,5011	412,7086	416,9172
100	421,1270	425,3381	429,5505	433,7641	437,9791	442,1954	446,4130	450,6321	454,8525	459,0743
110	463,2976	467,5223	471,7486	475,9763	480,2055	484,4364	488,6688	492,9027	497,1384	501,3756
120	505,6145	509,8552	514,0975	518,3416	522,5875	526,8351	531,0846	535,3359	539,5891	543,8442
130	548,1012	552,3601	556,6211	560,8840	565,1490	569,4160	573,6851	577,9563	582,2297	586,5053
140	590,7830	595,0630	599,3453	603,6298	607,9167	612,2059	616,4976	620,7916	625,0881	629,3871
150	633,6886	637,9927	642,2994	646,6087	650,9206	655,2353	659,5527	663,8728	668,1958	672,5217
160	676,8504	681,1820	685,5166	689,8542	694,1949	698,5387	702,8856	707,2356	711,5889	715,9455
170	720,3054	724,6686	729,0352	733,4053	737,7789	742,1560	746,5367	750,9211	755,3091	759,7009
180	764,0965	768,4960	772,8994	777,3067	781,7181	786,1335	790,5531	794,9769	799,4049	803,8373
190	808,2740	812,7152	817,1609	821,6111	826,0660	830,5256	834,9900	839,4592	843,9333	848,4125
200	852,8967	857,3860	861,8806	866,3804	870,8857	875,3963	879,9126	884,4344	888,9620	893,4953
210	898,0346	902,5798	907,1311	911,6885	916,2522	920,8223	925,3988	929,9819	934,5717	939,1682
220	943,7716	948,3821	952,9996	957,6243	962,2564	966,8960	971,5431	976,1980	980,8607	985,5313

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 2,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	2,9058	7,1099	11,3112	15,5098	19,7061	23,9002	28,0923	32,2826	36,4712	40,6582
10	44,8438	49,0282	53,2113	57,3934	61,5744	65,7545	69,9338	74,1122	78,2900	82,4671
20	86,6435	90,8194	94,9948	99,1697	103,3442	107,5183	111,6920	115,8654	120,0385	124,2113
30	128,3839	132,5563	136,7286	140,9006	145,0726	149,2444	153,4162	157,5879	161,7596	165,9313
40	170,1030	174,2747	178,4465	182,6184	186,7904	190,9625	195,1347	199,3071	203,4797	207,6525
50	211,8255	215,9987	220,1722	224,3460	228,5202	232,6946	236,8694	241,0445	245,2200	249,3960
60	253,5723	257,7491	261,9264	266,1041	270,2824	274,4612	278,6405	282,8204	287,0008	291,1819
70	295,3636	299,5459	303,7289	307,9126	312,0970	316,2821	320,4679	324,6545	328,8419	333,0301
80	337,2191	341,4089	345,5996	349,7912	353,9837	358,1771	362,3714	366,5668	370,7630	374,9603
90	379,1586	383,3580	387,5584	391,7599	395,9624	400,1661	404,3710	408,5770	412,7842	416,9926
100	421,2022	425,4131	429,6252	433,8386	438,0534	442,2694	446,4869	450,7056	454,9258	459,1474
110	463,3705	467,5950	471,8210	476,0484	480,2775	484,5080	488,7402	492,9739	497,2093	501,4463
120	505,6850	509,9254	514,1674	518,4113	522,6569	526,9043	531,1535	535,4045	539,6575	543,9123
130	548,1690	552,4277	556,6883	560,9510	565,2157	569,4824	573,7513	578,0222	582,2953	586,5706
140	590,8481	595,1277	599,4097	603,6940	607,9805	612,2695	616,5608	620,8545	625,1507	629,4494
150	633,7506	638,0544	642,3607	646,6697	650,9813	655,2956	659,6127	663,9325	668,2552	672,5807
160	676,9090	681,2403	685,5746	689,9118	694,2521	698,5955	702,9420	707,2917	711,6447	716,0008
170	720,3603	724,7231	729,0894	733,4590	737,8322	742,2089	746,5892	750,9731	755,3608	759,7521
180	764,1473	768,5463	772,9493	777,3562	781,7671	786,1820	790,6011	795,0244	799,4520	803,8838
190	808,3201	812,7607	817,2059	821,6556	826,1100	830,5691	835,0329	839,5016	843,9752	848,4537
200	852,9374	857,4261	861,9201	866,4194	870,9240	875,4340	879,9496	884,4708	888,9978	893,5305
210	898,0690	902,6136	907,1642	911,7209	916,2839	920,8533	925,4291	930,0114	934,6004	939,1962
220	943,7988	948,4085	953,0252	957,6491	962,2803	966,9190	971,5653	976,2193	980,8811	985,5509

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,0072	7,2109	11,4117	15,6099	19,8057	23,9994	28,1911	32,3809	36,5691	40,7558
10	44,9410	49,1250	53,3078	57,4895	61,6702	65,8500	70,0289	74,2070	78,3845	82,5612
20	86,7374	90,9130	95,0881	99,2627	103,4369	107,6107	111,7841	115,9572	120,1301	124,3026
30	128,4750	132,6471	136,8191	140,9909	145,1626	149,3342	153,5057	157,6772	161,8486	166,0200
40	170,1915	174,3630	178,5345	182,7062	186,8779	191,0498	195,2218	199,3939	203,5663	207,7388
50	211,9116	216,0847	220,2579	224,4315	228,6054	232,7796	236,9542	241,1291	245,3044	249,4801
60	253,6562	257,8328	262,0099	266,1874	270,3654	274,5440	278,7231	282,9028	287,0830	291,2639
70	295,4453	299,6275	303,8102	307,9937	312,1779	316,3627	320,5484	324,7348	328,9219	333,1099
80	337,2987	341,4883	345,6788	349,8702	354,0624	358,2556	362,4497	366,6448	370,8409	375,0380
90	379,2360	383,4352	387,6353	391,8366	396,0390	400,2425	404,4471	408,6529	412,8598	417,0680
100	421,2774	425,4881	429,7000	433,9132	438,1277	442,3435	446,5607	450,7792	454,9992	459,2205
110	463,4433	467,6676	471,8933	476,1206	480,3494	484,5797	488,8116	493,0451	497,2802	501,5170
120	505,7554	509,9955	514,2374	518,4810	522,7263	526,9734	531,2224	535,4732	539,7258	543,9804
130	548,2368	552,4953	556,7556	561,0180	565,2825	569,5489	573,8175	578,0881	582,3609	586,6359
140	590,9131	595,1925	599,4742	603,7581	608,0444	612,3330	616,6241	620,9175	625,2134	629,5117
150	633,8126	638,1161	642,4221	646,7307	651,0420	655,3560	659,6728	663,9922	668,3145	672,6397
160	676,9677	681,2986	685,6325	689,9694	694,3094	698,6524	702,9985	707,3479	711,7004	716,0562
170	720,4153	724,7777	729,1435	733,5128	737,8856	742,2618	746,6417	751,0252	755,4124	759,8034
180	764,1981	768,5967	772,9992	777,4056	781,8161	786,2306	790,6492	795,0720	799,4991	803,9304
190	808,3662	812,8063	817,2510	821,7002	826,1541	830,6126	835,0759	839,5440	844,0170	848,4950
200	852,9781	857,4663	861,9597	866,4583	870,9623	875,4718	879,9868	884,5073	889,0336	893,5656
210	898,1036	902,6474	907,1973	911,7534	916,3157	920,8843	925,4594	930,0410	934,6293	939,2242
220	943,8261	948,4349	953,0508	957,6739	962,3043	966,9422	971,5876	976,2407	980,9016	985,5705

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,1 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,1086	7,3118	11,5121	15,7099	19,9053	24,0985	28,2898	32,4793	36,6671	40,8534
10	45,0382	49,2218	53,4043	57,5856	61,7660	65,9454	70,1240	74,3018	78,4789	82,6554
20	86,8312	91,0065	95,1813	99,3556	103,5295	107,7031	111,8762	116,0491	120,2216	124,3939
30	128,5660	132,7379	136,9096	141,0811	145,2526	149,4239	153,5952	157,7664	161,9376	166,1088
40	170,2800	174,4512	178,6226	182,7939	186,9654	191,1371	195,3088	199,4808	203,6529	207,8252
50	211,9978	216,1706	220,3436	224,5170	228,6907	232,8646	237,0390	241,2137	245,3888	249,5643
60	253,7402	257,9165	262,0934	266,2707	270,4485	274,6268	278,8057	282,9852	287,1652	291,3458
70	295,5271	299,7090	303,8916	308,0748	312,2588	316,4434	320,6288	324,8150	329,0020	333,1897
80	337,3783	341,5677	345,7580	349,9491	354,1412	358,3341	362,5280	366,7229	370,9188	375,1156
90	379,3135	383,5124	387,7123	391,9134	396,1155	400,3188	404,5232	408,7287	412,9355	417,1434
100	421,3526	425,5630	429,7747	433,9877	438,2019	442,4175	446,6345	450,8528	455,0725	459,2937
110	463,5162	467,7402	471,9658	476,1928	480,4213	484,6514	488,8830	493,1163	497,3512	501,5877
120	505,8259	510,0657	514,3073	518,5506	522,7957	527,0426	531,2913	535,5418	539,7942	544,0485
130	548,3047	552,5628	556,8230	561,0851	565,3492	569,6154	573,8837	578,1541	582,4266	586,7013
140	590,9782	595,2573	599,5386	603,8223	608,1083	612,3966	616,6873	620,9804	625,2760	629,5741
150	633,8746	638,1778	642,4835	646,7918	651,1028	655,4164	659,7328	664,0520	668,3739	672,6987
160	677,0264	681,3570	685,6905	690,0270	694,3666	698,7093	703,0550	707,4040	711,7561	716,1115
170	720,4702	724,8323	729,1977	733,5666	737,9389	742,3148	746,6943	751,0774	755,4641	759,8547
180	764,2490	768,6471	773,0491	777,4551	781,8651	786,2791	790,6973	795,1196	799,5462	803,9771
190	808,4123	812,8520	817,2961	821,7448	826,1981	830,6561	835,1189	839,5865	844,0589	848,5364
200	853,0189	857,5065	861,9993	866,4973	871,0007	875,5096	880,0239	884,5439	889,0695	893,6009
210	898,1381	902,6813	907,2305	911,7859	916,3475	920,9154	925,4898	930,0706	934,6581	939,2523
220	943,8534	948,4615	953,0766	957,6988	962,3284	966,9654	971,6100	976,2622	980,9222	985,5901

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,2 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,2100	7,4127	11,6126	15,8099	20,0049	24,1977	28,3885	32,5776	36,7650	40,9509
10	45,1354	49,3187	53,5007	57,6817	61,8617	66,0408	70,2191	74,3966	78,5734	82,7495
20	86,9251	91,1001	95,2746	99,4486	103,6222	107,7954	111,9683	116,1409	120,3132	124,4852
30	128,6570	132,8286	137,0000	141,1713	145,3425	149,5136	153,6846	157,8556	162,0266	166,1975
40	170,3685	174,5395	178,7106	182,8817	187,0530	191,2244	195,3959	199,5676	203,7395	207,9116
50	212,0839	216,2565	220,4293	224,6025	228,7759	232,9497	237,1238	241,2983	245,4731	249,6484
60	253,8241	258,0002	262,1768	266,3539	270,5315	274,7097	278,8883	283,0676	287,2474	291,4278
70	295,6088	299,7905	303,9729	308,1559	312,3396	316,5241	320,7093	324,8952	329,0820	333,2695
80	337,4579	341,6471	345,8371	350,0281	354,2199	358,4126	362,6063	366,8010	370,9966	375,1932
90	379,3909	383,5896	387,7893	391,9901	396,1921	400,3951	404,5993	408,8046	413,0111	417,2189
100	421,4278	425,6380	429,8494	434,0622	438,2762	442,4916	446,7083	450,9264	455,1459	459,3668
110	463,5891	467,8129	472,0382	476,2649	480,4932	484,7231	488,9545	493,1875	497,4221	501,6584
120	505,8963	510,1359	514,3773	518,6203	522,8652	527,1118	531,3602	535,6105	539,8626	544,1166
130	548,3726	552,6304	556,8903	561,1521	565,4160	569,6819	573,9499	578,2200	582,4922	586,7666
140	591,0432	595,3220	599,6031	603,8865	608,1722	612,4602	616,7506	621,0434	625,3387	629,6364
150	633,9367	638,2395	642,5449	646,8528	651,1635	655,4768	659,7929	664,1117	668,4333	672,7577
160	677,0851	681,4153	685,7485	690,0847	694,4239	698,7662	703,1116	707,4601	711,8119	716,1669
170	720,5252	724,8869	729,2519	733,6204	737,9923	742,3678	746,7468	751,1295	755,5159	759,9059
180	764,2998	768,6975	773,0991	777,5046	781,9141	786,3277	790,7454	795,1673	799,5933	804,0237
190	808,4585	812,8976	817,3413	821,7894	826,2422	830,6997	835,1619	839,6290	844,1009	848,5778
200	853,0597	857,5467	862,0389	866,5364	871,0392	875,5474	880,0611	884,5804	889,1054	893,6362
210	898,1727	902,7153	907,2638	911,8185	916,3794	920,9466	925,5202	930,1003	934,6870	939,2805
220	943,8808	948,4880	953,1023	957,7238	962,3525	966,9887	971,6324	976,2837	980,9428	985,6099

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,3114	7,5136	11,7130	15,9099	20,1044	24,2968	28,4873	32,6759	36,8629	41,0484
10	45,2326	49,4155	53,5972	57,7778	61,9575	66,1363	70,3142	74,4914	78,6679	82,8437
20	87,0189	91,1936	95,3678	99,5415	103,7149	107,8878	112,0604	116,2327	120,4047	124,5765
30	128,7480	132,9194	137,0905	141,2616	145,4325	149,6033	153,7741	157,9448	162,1155	166,2862
40	170,4570	174,6277	178,7986	182,9695	187,1405	191,3117	195,4830	199,6544	203,8261	207,9980
50	212,1701	216,3424	220,5150	224,6879	228,8611	233,0347	237,2086	241,3828	245,5575	249,7325
60	253,9080	258,0839	262,2603	266,4372	270,6146	274,7925	278,9709	283,1500	287,3296	291,5098
70	295,6906	299,8721	304,0542	308,2370	312,4205	316,6048	320,7897	324,9755	329,1620	333,3493
80	337,5375	341,7265	345,9163	350,1070	354,2986	358,4912	362,6846	366,8791	371,0745	375,2709
90	379,4683	383,6668	387,8663	392,0669	396,2686	400,4714	404,6754	408,8805	413,0868	417,2943
100	421,5030	425,7130	429,9242	434,1367	438,3505	442,5656	446,7821	451,0000	455,2192	459,4399
110	463,6620	467,8855	472,1106	476,3371	480,5652	484,7948	489,0259	493,2587	497,4931	501,7291
120	505,9668	510,2061	514,4472	518,6900	522,9346	527,1810	531,4291	535,6791	539,9310	544,1848
130	548,4404	552,6980	556,9576	561,2192	565,4828	569,7484	574,0161	578,2859	582,5579	586,8320
140	591,1083	595,3868	599,6676	603,9507	608,2361	612,5238	616,8139	621,1064	625,4014	629,6988
150	633,9987	638,3012	642,6063	646,9139	651,2242	655,5372	659,8530	664,1714	668,4927	672,8168
160	677,1438	681,4737	685,8065	690,1423	694,4812	698,8231	703,1681	707,5163	711,8677	716,2223
170	720,5803	724,9415	729,3061	733,6742	738,0457	742,4208	746,7994	751,1817	755,5676	759,9573
180	764,3507	768,7479	773,1491	777,5541	781,9632	786,3763	790,7935	795,2149	799,6405	804,0704
190	808,5047	812,9433	817,3864	821,8341	826,2864	830,7433	835,2050	839,6715	844,1429	848,6192
200	853,1005	857,5870	862,0786	866,5754	871,0776	875,5853	880,0984	884,6170	889,1414	893,6715
210	898,2074	902,7492	907,2971	911,8511	916,4113	920,9778	925,5506	930,1300	934,7160	939,3087
220	943,9082	948,5147	953,1282	957,7488	962,3767	967,0121	971,6549	976,3053	980,9636	985,6297

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,4128	7,6145	11,8135	16,0099	20,2040	24,3959	28,5860	32,7742	36,9608	41,1460
10	45,3297	49,5123	53,6936	57,8739	62,0533	66,2317	70,4093	74,5861	78,7623	82,9378
20	87,1128	91,2871	95,4610	99,6345	103,8075	107,9802	112,1525	116,3245	120,4962	124,6677
30	128,8390	133,0101	137,1810	141,3518	145,5225	149,6930	153,8636	158,0340	162,2045	166,3750
40	170,5454	174,7160	178,8866	183,0572	187,2280	191,3990	195,5700	199,7413	203,9127	208,0843
50	212,2562	216,4283	220,6007	224,7734	228,9464	233,1197	237,2934	241,4674	245,6418	249,8167
60	253,9919	258,1676	262,3438	266,5205	270,6976	274,8753	279,0536	283,2324	287,4117	291,5917
70	295,7723	299,9536	304,1355	308,3181	312,5014	316,6854	320,8702	325,0557	329,2420	333,4291
80	337,6171	341,8058	345,9955	350,1860	354,3774	358,5697	362,7629	366,9572	371,1523	375,3485
90	379,5457	383,7440	387,9433	392,1437	396,3451	400,5477	404,7515	408,9564	413,1624	417,3697
100	421,5782	425,7879	429,9989	434,2112	438,4248	442,6397	446,8560	451,0736	455,2926	459,5130
110	463,7349	467,9582	472,1830	476,4093	480,6371	484,8665	489,0974	493,3299	497,5640	501,7998
120	506,0372	510,2763	514,5172	518,7597	523,0040	527,2502	531,4981	535,7478	539,9994	544,2529
130	548,5083	552,7656	557,0249	561,2862	565,5495	569,8149	574,0823	578,3519	582,6235	586,8974
140	591,1734	595,4516	599,7321	604,0149	608,3000	612,5874	616,8772	621,1694	625,4640	629,7612
150	634,0608	638,3629	642,6677	646,9750	651,2850	655,5977	659,9131	664,2312	668,5521	672,8759
160	677,2025	681,5320	685,8645	690,2000	694,5385	698,8800	703,2247	707,5725	711,9235	716,2778
170	720,6353	724,9962	729,3604	733,7281	738,0992	742,4738	746,8521	751,2339	755,6194	760,0086
180	764,4016	768,7984	773,1991	777,6037	782,0123	786,4249	790,8417	795,2626	799,6877	804,1171
190	808,5509	812,9890	817,4317	821,8788	826,3306	830,7870	835,2481	839,7140	844,1849	848,6606
200	853,1414	857,6273	862,1183	866,6146	871,1162	875,6232	880,1357	884,6537	889,1774	893,7068
210	898,2421	902,7833	907,3305	911,8838	916,4432	921,0090	925,5812	930,1598	934,7451	939,3370
220	943,9357	948,5414	953,1541	957,7739	962,4010	967,0355	971,6774	976,3270	980,9843	985,6496

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,5 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,5141	7,7154	11,9139	16,1098	20,3035	24,4950	28,6847	32,8725	37,0587	41,2435
10	45,4269	49,6090	53,7901	57,9700	62,1490	66,3271	70,5044	74,6809	78,8567	83,0319
20	87,2066	91,3807	95,5543	99,7274	103,9002	108,0725	112,2446	116,4163	120,5878	124,7590
30	128,9300	133,1008	137,2715	141,4420	145,6124	149,7827	153,9530	158,1232	162,2935	166,4637
40	170,6339	174,8042	178,9746	183,1450	187,3156	191,4862	195,6571	199,8281	203,9993	208,1707
50	212,3423	216,5142	220,6864	224,8589	229,0316	233,2047	237,3782	241,5520	245,7262	249,9008
60	254,0758	258,2513	262,4273	266,6037	270,7807	274,9581	279,1362	283,3147	287,4939	291,6737
70	295,8541	300,0351	304,2168	308,3992	312,5823	316,7661	320,9507	325,1360	329,3221	333,5090
80	337,6967	341,8852	346,0746	350,2649	354,4561	358,6482	362,8412	367,0352	371,2302	375,4262
90	379,6232	383,8212	388,0203	392,2204	396,4217	400,6241	404,8276	409,0323	413,2381	417,4451
100	421,6534	425,8629	430,0737	434,2857	438,4991	442,7138	446,9298	451,1472	455,3660	459,5862
110	463,8078	468,0309	472,2554	476,4815	480,7090	484,9382	489,1688	493,4011	497,6350	501,8705
120	506,1077	510,3466	514,5871	518,8294	523,0735	527,3193	531,5670	535,8165	540,0678	544,3210
130	548,5762	552,8332	557,0923	561,3533	565,6163	569,8814	574,1486	578,4178	582,6892	586,9628
140	591,2385	595,5164	599,7966	604,0791	608,3639	612,6510	616,9405	621,2324	625,5267	629,8235
150	634,1228	638,4247	642,7291	647,0361	651,3458	655,6581	659,9732	664,2910	668,6116	672,9350
160	677,2613	681,5904	685,9226	690,2577	694,5958	698,9370	703,2813	707,6287	711,9793	716,3332
170	720,6903	725,0508	729,4147	733,7819	738,1527	742,5269	746,9047	751,2861	755,6712	760,0600
180	764,4525	768,8489	773,2491	777,6533	782,0614	786,4736	790,8899	795,3103	799,7350	804,1639
190	808,5971	813,0348	817,4769	821,9235	826,3748	830,8306	835,2912	839,7566	844,2269	848,7021
200	853,1823	857,6676	862,1580	866,6537	871,1547	875,6611	880,1730	884,6904	889,2135	893,7423
210	898,2769	902,8174	907,3639	911,9165	916,4752	921,0403	925,6117	930,1897	934,7741	939,3653
220	943,9633	948,5682	953,1801	957,7991	962,4253	967,0590	971,7001	976,3488	981,0052	985,6695

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,6 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,6154	7,8162	12,0143	16,2098	20,4030	24,5941	28,7833	32,9708	37,1566	41,3410
10	45,5240	49,7058	53,8865	58,0661	62,2447	66,4225	70,5994	74,7756	78,9512	83,1261
20	87,3004	91,4742	95,6475	99,8203	103,9928	108,1649	112,3366	116,5081	120,6793	124,8502
30	129,0210	133,1915	137,3619	141,5322	145,7024	149,8724	154,0425	158,2124	162,3824	166,5524
40	170,7224	174,8924	179,0625	183,2328	187,4031	191,5735	195,7441	199,9149	204,0859	208,2571
50	212,4285	216,6001	220,7721	224,9443	229,1169	233,2897	237,4630	241,6365	245,8105	249,9849
60	254,1597	258,3350	262,5108	266,6870	270,8637	275,0410	279,2188	283,3971	287,5761	291,7557
70	295,9358	300,1167	304,2982	308,4803	312,6632	316,8468	321,0311	325,2162	329,4021	333,5888
80	337,7763	341,9646	346,1538	350,3439	354,5348	358,7267	362,9195	367,1133	371,3081	375,5038
90	379,7006	383,8984	388,0973	392,2972	396,4982	400,7004	404,9037	409,1081	413,3138	417,5206
100	421,7286	425,9379	430,1484	434,3603	438,5734	442,7878	447,0036	451,2208	455,4393	459,6593
110	463,8807	468,1035	472,3278	476,5537	480,7810	485,0099	489,2403	493,4723	497,7060	501,9412
120	506,1782	510,4168	514,6571	518,8992	523,1430	527,3886	531,6359	535,8852	540,1362	544,3892
130	548,6441	552,9009	557,1596	561,4204	565,6831	569,9479	574,2148	578,4838	582,7549	587,0281
140	591,3036	595,5812	599,8612	604,1433	608,4278	612,7146	617,0038	621,2954	625,5894	629,8859
150	634,1849	638,4865	642,7906	647,0972	651,4066	655,7186	660,0333	664,3508	668,6710	672,9941
160	677,3200	681,6488	685,9806	690,3153	694,6531	698,9939	703,3379	707,6849	712,0352	716,3887
170	720,7454	725,1055	729,4690	733,8358	738,2061	742,5800	746,9573	751,3383	755,7230	760,1113
180	764,5035	768,8994	773,2992	777,7029	782,1106	786,5223	790,9381	795,3581	799,7822	804,2107
190	808,6434	813,0806	817,5222	821,9683	826,4190	830,8743	835,3344	839,7993	844,2690	848,7436
200	853,2233	857,7080	862,1978	866,6929	871,1933	875,6991	880,2104	884,7271	889,2496	893,7777
210	898,3117	902,8515	907,3973	911,9492	916,5073	921,0717	925,6424	930,2195	934,8033	939,3937
220	943,9909	948,5950	953,2061	957,8243	962,4497	967,0825	971,7227	976,3706	981,0261	985,6895

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,7168	7,9171	12,1146	16,3097	20,5025	24,6932	28,8820	33,0691	37,2545	41,4385
10	45,6212	49,8026	53,9829	58,1621	62,3404	66,5179	70,6945	74,8704	79,0456	83,2202
20	87,3942	91,5677	95,7407	99,9133	104,0854	108,2572	112,4287	116,5999	120,7708	124,9415
30	129,1120	133,2823	137,4524	141,6224	145,7923	149,9621	154,1319	158,3016	162,4714	166,6411
40	170,8108	174,9806	179,1505	183,3205	187,4906	191,6608	195,8312	200,0017	204,1725	208,3434
50	212,5146	216,6860	220,8578	225,0298	229,2021	233,3747	237,5477	241,7211	245,8949	250,0691
60	254,2437	258,4187	262,5942	266,7702	270,9467	275,1238	279,3014	283,4795	287,6583	291,8376
70	296,0176	300,1982	304,3795	308,5614	312,7441	316,9275	321,1116	325,2965	329,4821	333,6686
80	337,8559	342,0440	346,2330	350,4228	354,6136	358,8052	362,9979	367,1914	371,3860	375,5815
90	379,7780	383,9756	388,1743	392,3740	396,5748	400,7767	404,9798	409,1840	413,3894	417,5960
100	421,8038	426,0129	430,2232	434,4348	438,6477	442,8619	447,0775	451,2944	455,5127	459,7324
110	463,9536	468,1762	472,4003	476,6258	480,8529	485,0816	489,3118	493,5435	497,7769	502,0120
120	506,2486	510,4870	514,7271	518,9689	523,2124	527,4578	531,7049	535,9539	540,2047	544,4574
130	548,7120	552,9685	557,2270	561,4875	565,7499	570,0145	574,2811	578,5498	582,8206	587,0936
140	591,3687	595,6461	599,9257	604,2076	608,4918	612,7783	617,0672	621,3585	625,6522	629,9483
150	634,2470	638,5482	642,8520	647,1584	651,4674	655,7791	660,0935	664,4106	668,7305	673,0532
160	677,3788	681,7073	686,0387	690,3731	694,7105	699,0509	703,3945	707,7412	712,0910	716,4441
170	720,8005	725,1602	729,5233	733,8897	738,2596	742,6331	747,0100	751,3906	755,7748	760,1628
180	764,5544	768,9499	773,3493	777,7525	782,1598	786,5710	790,9864	795,4058	799,8295	804,2575
190	808,6897	813,1264	817,5675	822,0131	826,4633	830,9181	835,3776	839,8419	844,3111	848,7852
200	853,2643	857,7484	862,2377	866,7322	871,2320	875,7371	880,2478	884,7639	889,2857	893,8132
210	898,3465	902,8857	907,4308	911,9820	916,5394	921,1031	925,6730	930,2495	934,8325	939,4222
220	944,0186	948,6219	953,2322	957,8496	962,4742	967,1061	971,7455	976,3925	981,0471	985,7097

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,8181	8,0179	12,2150	16,4096	20,6020	24,7923	28,9807	33,1673	37,3524	41,5360
10	45,7183	49,8993	54,0793	58,2582	62,4361	66,6132	70,7895	74,9651	79,1400	83,3143
20	87,4880	91,6612	95,8339	100,0062	104,1780	108,3496	112,5208	116,6917	120,8623	125,0327
30	129,2029	133,3730	137,5429	141,7126	145,8823	150,0518	154,2213	158,3908	162,5603	166,7298
40	170,8993	175,0689	179,2385	183,4082	187,5781	191,7481	195,9182	200,0885	204,2590	208,4298
50	212,6007	216,7720	220,9434	225,1152	229,2873	233,4597	237,6325	241,8057	245,9792	250,1532
60	254,3276	258,5024	262,6777	266,8535	271,0298	275,2066	279,3840	283,5619	287,7404	291,9196
70	296,0993	300,2797	304,4608	308,6425	312,8250	317,0081	321,1920	325,3767	329,5622	333,7484
80	337,9355	342,1234	346,3121	350,5018	354,6923	358,8838	363,0762	367,2695	371,4638	375,6591
90	379,8555	384,0528	388,2513	392,4508	396,6514	400,8531	405,0559	409,2599	413,4651	417,6715
100	421,8791	426,0879	430,2980	434,5093	438,7220	442,9360	447,1513	451,3680	455,5861	459,8056
110	464,0265	468,2489	472,4727	476,6980	480,9249	485,1533	489,3832	493,6148	497,8479	502,0827
120	506,3191	510,5572	514,7971	519,0386	523,2819	527,5270	531,7739	536,0226	540,2731	544,5255
130	548,7799	553,0361	557,2943	561,5546	565,8168	570,0810	574,3473	578,6157	582,8863	587,1590
140	591,4338	595,7109	599,9902	604,2718	608,5557	612,8419	617,1305	621,4215	625,7149	630,0108
150	634,3091	638,6100	642,9135	647,2195	651,5282	655,8396	660,1536	664,4704	668,7900	673,1123
160	677,4376	681,7657	686,0968	690,4308	694,7678	699,1079	703,4511	707,7974	712,1469	716,4996
170	720,8556	725,2149	729,5776	733,9437	738,3132	742,6862	747,0627	751,4429	755,8267	760,2142
180	764,6054	769,0005	773,3994	777,8022	782,2090	786,6198	791,0346	795,4536	799,8769	804,3043
190	808,7361	813,1722	817,6128	822,0579	826,5076	830,9619	835,4209	839,8846	844,3532	848,8268
200	853,3053	857,7888	862,2775	866,7715	871,2707	875,7752	880,2852	884,8008	889,3219	893,8488
210	898,3814	902,9199	907,4644	912,0149	916,5716	921,1345	925,7038	930,2795	934,8618	939,4507
220	944,0463	948,6488	953,2583	957,8749	962,4987	967,1298	971,7683	976,4144	981,0682	985,7298

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 3,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	3,9194	8,1187	12,3154	16,5095	20,7015	24,8913	29,0793	33,2656	37,4502	41,6335
10	45,8154	49,9961	54,1757	58,3542	62,5318	66,7086	70,8846	75,0598	79,2344	83,4084
20	87,5818	91,7547	95,9271	100,0991	104,2707	108,4419	112,6128	116,7834	120,9538	125,1240
30	129,2939	133,4637	137,6333	141,8028	145,9722	150,1415	154,3108	158,4800	162,6492	166,8185
40	170,9877	175,1571	179,3265	183,4960	187,6656	191,8353	196,0053	200,1753	204,3456	208,5161
50	212,6869	216,8578	221,0291	225,2007	229,3725	233,5448	237,7173	241,8902	246,0636	250,2373
60	254,4115	258,5861	262,7612	266,9367	271,1128	275,2894	279,4666	283,6443	287,8226	292,0015
70	296,1811	300,3613	304,5421	308,7236	312,9059	317,0888	321,2725	325,4570	329,6422	333,8282
80	338,0151	342,2028	346,3913	350,5807	354,7711	358,9623	363,1545	367,3476	371,5417	375,7368
90	379,9329	384,1301	388,3283	392,5275	396,7279	400,9294	405,1320	409,3358	413,5408	417,7469
100	421,9543	426,1629	430,3727	434,5839	438,7963	443,0101	447,2252	451,4416	455,6595	459,8787
110	464,0994	468,3215	472,5451	476,7702	480,9969	485,2250	489,4547	493,6860	497,9189	502,1534
120	506,3896	510,6275	514,8671	519,1083	523,3514	527,5962	531,8428	536,0913	540,3415	544,5937
130	548,8478	553,1038	557,3617	561,6217	565,8836	570,1476	574,4136	578,6817	582,9520	587,2244
140	591,4990	595,7758	600,0548	604,3361	608,6197	612,9056	617,1939	621,4845	625,7776	630,0732
150	634,3713	638,6718	642,9750	647,2807	651,5890	655,9001	660,2138	664,5302	668,8495	673,1715
160	677,4964	681,8242	686,1549	690,4885	694,8252	699,1649	703,5078	707,8537	712,2028	716,5552
170	720,9108	725,2697	729,6319	733,9976	738,3667	742,7393	747,1155	751,4952	755,8786	760,2656
180	764,6564	769,0511	773,4495	777,8519	782,2582	786,6685	791,0829	795,5015	799,9242	804,3512
190	808,7825	813,2181	817,6582	822,1028	826,5519	831,0057	835,4641	839,9274	844,3954	848,8684
200	853,3463	857,8293	862,3175	866,8108	871,3094	875,8133	880,3227	884,8376	889,3582	893,8844
210	898,4163	902,9542	907,4980	912,0478	916,6038	921,1660	925,7346	930,3095	934,8911	939,4792
220	944,0741	948,6758	953,2845	957,9003	962,5233	967,1535	971,7912	976,4365	981,0894	985,7501

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,0206	8,2195	12,4157	16,6094	20,8009	24,9904	29,1779	33,3638	37,5481	41,7309
10	45,9125	50,0928	54,2720	58,4502	62,6275	66,8040	70,9796	75,1545	79,3288	83,5024
20	87,6755	91,8481	96,0203	100,1919	104,3633	108,5342	112,7049	116,8752	121,0453	125,2152
30	129,3849	133,5544	137,7237	141,8930	146,0621	150,2312	154,4002	158,5692	162,7382	166,9072
40	171,0762	175,2453	179,4144	183,5837	187,7531	191,9226	196,0923	200,2621	204,4322	208,6025
50	212,7730	216,9437	221,1148	225,2861	229,4578	233,6298	237,8021	241,9748	246,1479	250,3214
60	254,4954	258,6698	262,8446	267,0200	271,1959	275,3723	279,5492	283,7267	287,9048	292,0835
70	296,2628	300,4428	304,6234	308,8047	312,9867	317,1695	321,3530	325,5372	329,7222	333,9080
80	338,0947	342,2822	346,4705	350,6597	354,8498	359,0408	363,2328	367,4257	371,6196	375,8145
90	380,0103	384,2073	388,4053	392,6043	396,8045	401,0057	405,2081	409,4117	413,6164	417,8224
100	422,0295	426,2379	430,4475	434,6584	438,8706	443,0842	447,2990	451,5153	455,7329	459,9519
110	464,1723	468,3942	472,6176	476,8425	481,0688	485,2967	489,5262	493,7572	497,9899	502,2242
120	506,4601	510,6977	514,9371	519,1781	523,4209	527,6654	531,9118	536,1600	540,4100	544,6619
130	548,9157	553,1714	557,4291	561,6888	565,9504	570,2141	574,4799	578,7477	583,0177	587,2898
140	591,5641	595,8406	600,1194	604,4003	608,6836	612,9693	617,2572	621,5476	625,8404	630,1357
150	634,4334	638,7336	643,0365	647,3419	651,6499	655,9606	660,2740	664,5901	668,9090	673,2307
160	677,5552	681,8826	686,2130	690,5463	694,8826	699,2220	703,5644	707,9100	712,2587	716,6107
170	720,9659	725,3244	729,6863	734,0516	738,4203	742,7925	747,1682	751,5475	755,9305	760,3171
180	764,7075	769,1017	773,4997	777,9016	782,3075	786,7173	791,1313	795,5493	799,9716	804,3981
190	808,8289	813,2640	817,7036	822,1477	826,5963	831,0495	835,5075	839,9701	844,4377	848,9101
200	853,3874	857,8699	862,3574	866,8501	871,3481	875,8515	880,3603	884,8746	889,3944	893,9200
210	898,4513	902,9885	907,5316	912,0808	916,6361	921,1976	925,7654	930,3397	934,9204	939,5078
220	944,1019	948,7029	953,3108	957,9258	962,5479	967,1774	971,8142	976,4586	981,1106	985,7704

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,1 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,1219	8,3203	12,5160	16,7093	20,9004	25,0894	29,2765	33,4620	37,6459	41,8284
10	46,0095	50,1895	54,3684	58,5463	62,7232	66,8993	71,0746	75,2492	79,4232	83,5965
20	87,7693	91,9416	96,1134	100,2848	104,4559	108,6265	112,7969	116,9670	121,1368	125,3064
30	129,4758	133,6451	137,8142	141,9832	146,1520	150,3209	154,4896	158,6584	162,8271	166,9958
40	171,1646	175,3335	179,5024	183,6714	187,8406	192,0099	196,1793	200,3489	204,5188	208,6888
50	212,8591	217,0296	221,2004	225,3716	229,5430	233,7148	237,8869	242,0594	246,2322	250,4055
60	254,5793	258,7535	262,9281	267,1032	271,2789	275,4551	279,6318	283,8091	287,9870	292,1655
70	296,3446	300,5243	304,7047	308,8858	313,0676	317,2502	321,4334	325,6174	329,8023	333,9879
80	338,1743	342,3615	346,5497	350,7386	354,9285	359,1193	363,3111	367,5038	371,6974	375,8921
90	380,0878	384,2845	388,4823	392,6811	396,8810	401,0821	405,2843	409,4876	413,6921	417,8978
100	422,1047	426,3129	430,5223	434,7330	438,9449	443,1582	447,3729	451,5889	455,8063	460,0250
110	464,2453	468,4669	472,6900	476,9147	481,1408	485,3685	489,5977	493,8285	498,0609	502,2949
120	506,5306	510,7680	515,0071	519,2478	523,4904	527,7347	531,9808	536,2287	540,4785	544,7301
130	548,9836	553,2391	557,4965	561,7559	566,0173	570,2807	574,5462	578,8138	583,0834	587,3553
140	591,6293	595,9055	600,1839	604,4646	608,7476	613,0329	617,3206	621,6107	625,9032	630,1981
150	634,4955	638,7955	643,0980	647,4030	651,7108	656,0211	660,3342	664,6499	668,9685	673,2899
160	677,6140	681,9411	686,2711	690,6041	694,9400	699,2790	703,6211	707,9663	712,3147	716,6663
170	721,0211	725,3792	729,7407	734,1056	738,4739	742,8456	747,2210	751,5999	755,9824	760,3686
180	764,7586	769,1523	773,5499	777,9513	782,3567	786,7662	791,1796	795,5972	800,0190	804,4450
190	808,8753	813,3099	817,7490	822,1926	826,6407	831,0934	835,5508	840,0129	844,4799	848,9518
200	853,4286	857,9104	862,3974	866,8895	871,3869	875,8897	880,3978	884,9115	889,4308	893,9557
210	898,4864	903,0229	907,5653	912,1138	916,6684	921,2292	925,7963	930,3698	934,9499	939,5365
220	944,1299	948,7300	953,3372	957,9513	962,5726	967,2012	971,8372	976,4807	981,1319	985,7908

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,2 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,2231	8,4211	12,6163	16,8092	20,9998	25,1884	29,3751	33,5602	37,7437	41,9258
10	46,1066	50,2862	54,4647	58,6423	62,8189	66,9946	71,1696	75,3439	79,5175	83,6906
20	87,8631	92,0351	96,2066	100,3777	104,5484	108,7188	112,8889	117,0587	121,2283	125,3976
30	129,5668	133,7358	137,9046	142,0733	146,2420	150,4105	154,5790	158,7475	162,9160	167,0845
40	171,2531	175,4217	179,5904	183,7592	187,9281	192,0971	196,2663	200,4357	204,6053	208,7752
50	212,9452	217,1155	221,2861	225,4570	229,6282	233,7997	237,9716	242,1439	246,3166	250,4897
60	254,6632	258,8371	263,0116	267,1865	271,3619	275,5379	279,7144	283,8915	288,0691	292,2474
70	296,4263	300,6058	304,7860	308,9669	313,1485	317,3308	321,5139	325,6977	329,8823	334,0677
80	338,2539	342,4409	346,6288	350,8176	355,0073	359,1979	363,3894	367,5819	371,7753	375,9698
90	380,1652	384,3617	388,5593	392,7579	396,9576	401,1584	405,3604	409,5635	413,7678	417,9733
100	422,1799	426,3879	430,5971	434,8075	439,0193	443,2323	447,4467	451,6625	455,8797	460,0982
110	464,3182	468,5396	472,7625	476,9869	481,2128	485,4402	489,6692	493,8997	498,1319	502,3657
120	506,6011	510,8383	515,0771	519,3176	523,5599	527,8039	532,0498	536,2974	540,5469	544,7983
130	549,0516	553,3068	557,5639	561,8230	566,0841	570,3473	574,6125	578,8798	583,1492	587,4207
140	591,6944	595,9704	600,2485	604,5289	608,8116	613,0966	617,3840	621,6738	625,9660	630,2606
150	634,5577	638,8573	643,1595	647,4642	651,7716	656,0817	660,3944	664,7098	669,0280	673,3491
160	677,6729	681,9996	686,3293	690,6619	694,9975	699,3361	703,6778	708,0226	712,3706	716,7218
170	721,0763	725,4340	729,7951	734,1596	738,5275	742,8988	747,2738	751,6522	756,0343	760,4201
180	764,8097	769,2029	773,6001	778,0011	782,4060	786,8150	791,2280	795,6451	800,0664	804,4919
190	808,9217	813,3559	817,7945	822,2375	826,6851	831,1373	835,5942	840,0558	844,5222	848,9935
200	853,4698	857,9510	862,4374	866,9290	871,4258	875,9279	880,4355	884,9485	889,4671	893,9914
210	898,5214	903,0573	907,5991	912,1469	916,7007	921,2608	925,8272	930,4000	934,9793	939,5652
220	944,1578	948,7572	953,3635	957,9769	962,5974	967,2252	971,8603	976,5030	981,1532	985,8113

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,3 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,3243	8,5218	12,7166	16,9090	21,0992	25,2874	29,4737	33,6584	37,8415	42,0232
10	46,2037	50,3829	54,5611	58,7383	62,9145	67,0900	71,2646	75,4386	79,6119	83,7846
20	87,9568	92,1285	96,2997	100,4706	104,6410	108,8111	112,9809	117,1505	121,3198	125,4888
30	129,6577	133,8264	137,9950	142,1635	146,3319	150,5002	154,6684	158,8367	163,0049	167,1732
40	171,3415	175,5099	179,6783	183,8469	188,0156	192,1844	196,3534	200,5225	204,6919	208,8615
50	213,0313	217,2014	221,3718	225,5424	229,7134	233,8847	238,0564	242,2285	246,4009	250,5738
60	254,7471	258,9208	263,0950	267,2697	271,4450	275,6207	279,7970	283,9739	288,1513	292,3294
70	296,5080	300,6874	304,8674	309,0480	313,2294	317,4115	321,5943	325,7779	329,9623	334,1475
80	338,3335	342,5203	346,7080	350,8966	355,0860	359,2764	363,4677	367,6600	371,8532	376,0474
90	380,2427	384,4389	388,6363	392,8347	397,0342	401,2348	405,4365	409,6394	413,8435	418,0487
100	422,2552	426,4629	430,6718	434,8821	439,0936	443,3064	447,5206	451,7361	455,9531	460,1714
110	464,3911	468,6123	472,8350	477,0591	481,2848	485,5119	489,7407	493,9710	498,2029	502,4365
120	506,6717	510,9085	515,1471	519,3874	523,6294	527,8732	532,1187	536,3661	540,6154	544,8665
130	549,1195	553,3744	557,6313	561,8902	566,1510	570,4139	574,6788	578,9458	583,2149	587,4862
140	591,7596	596,0353	600,3131	604,5932	608,8756	613,1604	617,4474	621,7369	626,0287	630,3231
150	634,6199	638,9192	643,2210	647,5255	651,8325	656,1422	660,4546	664,7697	669,0876	673,4083
160	677,7318	682,0582	686,3874	690,7197	695,0549	699,3932	703,7345	708,0790	712,4266	716,7774
170	721,1315	725,4888	729,8495	734,2136	738,5811	742,9521	747,3266	751,7046	756,0863	760,4717
180	764,8608	769,2536	773,6503	778,0509	782,4554	786,8639	791,2764	795,6931	800,1139	804,5389
190	808,9682	813,4019	817,8400	822,2825	826,7296	831,1812	835,6376	840,0986	844,5645	849,0353
200	853,5110	857,9917	862,4775	866,9684	871,4647	875,9662	880,4731	884,9856	889,5035	894,0272
210	898,5565	903,0917	907,6328	912,1800	916,7332	921,2926	925,8582	930,4303	935,0089	939,5940
220	944,1858	948,7845	953,3900	958,0026	962,6222	967,2492	971,8835	976,5253	981,1747	985,8318

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,4 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,4256	8,6226	12,8169	17,0089	21,1986	25,3864	29,5723	33,7566	37,9393	42,1207
10	46,3007	50,4796	54,6574	58,8342	63,0102	67,1853	71,3596	75,5333	79,7063	83,8787
20	88,0506	92,2220	96,3929	100,5634	104,7336	108,9034	113,0730	117,2422	121,4112	125,5800
30	129,7487	133,9171	138,0854	142,2536	146,4218	150,5898	154,7578	158,9258	163,0938	167,2619
40	171,4299	175,5981	179,7663	183,9346	188,1030	192,2716	196,4404	200,6093	204,7785	208,9478
50	213,1174	217,2873	221,4574	225,6279	229,7986	233,9697	238,1412	242,3130	246,4852	250,6579
60	254,8310	259,0045	263,1785	267,3530	271,5280	275,7035	279,8796	284,0562	288,2335	292,4113
70	296,5898	300,7689	304,9487	309,1291	313,3103	317,4922	321,6748	325,8582	330,0423	334,2273
80	338,4131	342,5997	346,7872	350,9755	355,1648	359,3549	363,5460	367,7381	371,9311	376,1251
90	380,3201	384,5162	388,7133	392,9115	397,1107	401,3111	405,5126	409,7153	413,9191	418,1242
100	422,3304	426,5379	430,7466	434,9566	439,1679	443,3805	447,5945	451,8098	456,0265	460,2446
110	464,4641	468,6850	472,9074	477,1313	481,3567	485,5837	489,8122	494,0423	498,2739	502,5072
120	506,7422	510,9788	515,2171	519,4571	523,6989	527,9424	532,1878	536,4349	540,6839	544,9347
130	549,1875	553,4421	557,6987	561,9573	566,2179	570,4805	574,7451	579,0118	583,2807	587,5517
140	591,8248	596,1002	600,3777	604,6575	608,9396	613,2241	617,5108	621,8000	626,0916	630,3856
150	634,6820	638,9810	643,2826	647,5867	651,8934	656,2028	660,5149	664,8296	669,1472	673,4675
160	677,7907	682,1167	686,4456	690,7775	695,1124	699,4503	703,7913	708,1354	712,4826	716,8330
170	721,1867	725,5437	729,9040	734,2677	738,6347	743,0053	747,3794	751,7571	756,1383	760,5233
180	764,9119	769,3043	773,7006	778,1007	782,5047	786,9128	791,3249	795,7410	800,1614	804,5859
190	809,0147	813,4479	817,8855	822,3275	826,7741	831,2252	835,6810	840,1416	844,6069	849,0771
200	853,5522	858,0323	862,5176	867,0080	871,5036	876,0045	880,5108	885,0226	889,5400	894,0630
210	898,5917	903,1262	907,6667	912,2131	916,7656	921,3243	925,8893	930,4606	935,0384	939,6228
220	944,2139	948,8118	953,4165	958,0283	962,6471	967,2732	971,9067	976,5476	981,1961	985,8524

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,5 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,5268	8,7233	12,9172	17,1087	21,2980	25,4854	29,6709	33,8547	38,0371	42,2181
10	46,3977	50,5763	54,7537	58,9302	63,1058	67,2806	71,4546	75,6279	79,8006	83,9727
20	88,1443	92,3154	96,4860	100,6563	104,8262	108,9957	113,1650	117,3339	121,5027	125,6712
30	129,8396	134,0078	138,1758	142,3438	146,5117	150,6795	154,8472	159,0150	163,1828	167,3505
40	171,5184	175,6863	179,8542	184,0223	188,1905	192,3589	196,5274	200,6961	204,8650	209,0342
50	213,2035	217,3732	221,5431	225,7133	229,8838	234,0547	238,2260	242,3976	246,5696	250,7420
60	254,9149	259,0882	263,2620	267,4362	271,6110	275,7863	279,9622	284,1386	288,3156	292,4933
70	296,6715	300,8504	305,0300	309,2102	313,3912	317,5729	321,7553	325,9384	330,1224	334,3071
80	338,4927	342,6791	346,8663	351,0545	355,2435	359,4335	363,6243	367,8162	372,0090	376,2028
90	380,3976	384,5934	388,7903	392,9883	397,1873	401,3875	405,5888	409,7912	413,9948	418,1996
100	422,4056	426,6129	430,8214	435,0312	439,2422	443,4546	447,6683	451,8834	456,0999	460,3177
110	464,5370	468,7577	472,9799	477,2036	481,4287	485,6554	489,8837	494,1135	498,3450	502,5780
120	506,8127	511,0491	515,2871	519,5269	523,7684	528,0117	532,2568	536,5036	540,7524	545,0029
130	549,2554	553,5098	557,7661	562,0244	566,2847	570,5471	574,8114	579,0779	583,3465	587,6172
140	591,8900	596,1651	600,4423	604,7219	609,0037	613,2878	617,5743	621,8631	626,1544	630,4481
150	634,7442	639,0429	643,3441	647,6479	651,9543	656,2634	660,5751	664,8896	669,2068	673,5267
160	677,8496	682,1752	686,5038	690,8354	695,1699	699,5074	703,8480	708,1917	712,5386	716,8887
170	721,2420	725,5985	729,9584	734,3217	738,6884	743,0586	747,4323	751,8095	756,1903	760,5748
180	764,9631	769,3551	773,7509	778,1505	782,5541	786,9617	791,3733	795,7890	800,2089	804,6330
190	809,0613	813,4940	817,9310	822,3725	826,8186	831,2692	835,7245	840,1845	844,6493	849,1189
200	853,5935	858,0731	862,5577	867,0475	871,5425	876,0429	880,5486	885,0598	889,5765	894,0989
210	898,6269	903,1608	907,7006	912,2463	916,7981	921,3561	925,9204	930,4910	935,0681	939,6517
220	944,2420	948,8391	953,4431	958,0540	962,6721	967,2974	971,9300	976,5701	981,2177	985,8731

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,6 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,6279	8,8240	13,0174	17,2085	21,3974	25,5843	29,7694	33,9529	38,1349	42,3154
10	46,4948	50,6729	54,8500	59,0262	63,2014	67,3759	71,5496	75,7226	79,8949	84,0667
20	88,2380	92,4088	96,5792	100,7491	104,9187	109,0880	113,2570	117,4257	121,5941	125,7624
30	129,9305	134,0984	138,2662	142,4339	146,6016	150,7691	154,9366	159,1041	163,2717	167,4392
40	171,6068	175,7744	179,9422	184,1100	188,2780	192,4461	196,6144	200,7829	204,9516	209,1205
50	213,2896	217,4590	221,6287	225,7987	229,9690	234,1397	238,3107	242,4821	246,6539	250,8261
60	254,9987	259,1718	263,3454	267,5195	271,6940	275,8691	280,0448	284,2210	288,3978	292,5752
70	296,7533	300,9320	305,1113	309,2913	313,4721	317,6535	321,8357	326,0187	330,2024	334,3869
80	338,5723	342,7585	346,9455	351,1334	355,3223	359,5120	363,7026	367,8943	372,0868	376,2804
90	380,4750	384,6706	388,8673	393,0650	397,2639	401,4638	405,6649	409,8671	414,0705	418,2751
100	422,4809	426,6879	430,8962	435,1057	439,3166	443,5287	447,7422	451,9571	456,1733	460,3909
110	464,6099	468,8304	473,0524	477,2758	481,5007	485,7272	489,9552	494,1848	498,4160	502,6488
120	506,8832	511,1194	515,3572	519,5967	523,8379	528,0810	532,3258	536,5724	540,8209	545,0712
130	549,3234	553,5775	557,8336	562,0916	566,3516	570,6137	574,8778	579,1440	583,4122	587,6826
140	591,9552	596,2300	600,5070	604,7862	609,0677	613,3515	617,6377	621,9263	626,2172	630,5106
150	634,8064	639,1048	643,4057	647,7092	652,0153	656,3240	660,6354	664,9495	669,2664	673,5860
160	677,9085	682,2338	686,5620	690,8932	695,2274	699,5646	703,9048	708,2481	712,5946	716,9443
170	721,2972	725,6534	730,0129	734,3758	738,7421	743,1119	747,4851	751,8620	756,2424	760,6265
180	765,0143	769,4058	773,8012	778,2004	782,6035	787,0107	791,4218	795,8370	800,2564	804,6800
190	809,1079	813,5400	817,9766	822,4176	826,8631	831,3133	835,7680	840,2275	844,6917	849,1608
200	853,6348	858,1138	862,5979	867,0871	871,5815	876,0813	880,5864	885,0969	889,6130	894,1348
210	898,6622	903,1954	907,7345	912,2796	916,8307	921,3880	925,9515	930,5214	935,0978	939,6807
220	944,2702	948,8665	953,4697	958,0799	962,6971	967,3216	971,9533	976,5926	981,2393	985,8938

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,7 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,7291	8,9247	13,1177	17,3083	21,4968	25,6833	29,8680	34,0510	38,2326	42,4128
10	46,5918	50,7696	54,9463	59,1221	63,2971	67,4712	71,6445	75,8172	79,9893	84,1608
20	88,3317	92,5022	96,6723	100,8420	105,0113	109,1803	113,3490	117,5174	121,6856	125,8536
30	130,0214	134,1891	138,3566	142,5241	146,6914	150,8588	155,0260	159,1933	163,3606	167,5278
40	171,6952	175,8626	180,0301	184,1977	188,3655	192,5334	196,7014	200,8697	205,0381	209,2068
50	213,3757	217,5449	221,7144	225,8842	230,0543	234,2247	238,3955	242,5667	246,7382	250,9102
60	255,0826	259,2555	263,4289	267,6027	271,7771	275,9520	280,1274	284,3034	288,4800	292,6572
70	296,8350	301,0135	305,1926	309,3724	313,5530	317,7342	321,9162	326,0989	330,2824	334,4668
80	338,6519	342,8379	347,0247	351,2124	355,4010	359,5905	363,7810	367,9724	372,1647	376,3581
90	380,5525	384,7479	388,9443	393,1418	397,3405	401,5402	405,7410	409,9430	414,1462	418,3506
100	422,5561	426,7629	430,9710	435,1803	439,3909	443,6028	447,8161	452,0307	456,2467	460,4641
110	464,6829	468,9031	473,1248	477,3480	481,5727	485,7990	490,0267	494,2561	498,4870	502,7196
120	506,9538	511,1896	515,4272	519,6665	523,9075	528,1502	532,3948	536,6412	540,8894	545,1394
130	549,3914	553,6452	557,9010	562,1588	566,4185	570,6803	574,9441	579,2100	583,4780	587,7481
140	592,0204	596,2949	600,5716	604,8505	609,1318	613,4153	617,7012	621,9894	626,2800	630,5731
150	634,8687	639,1667	643,4673	647,7704	652,0762	656,3846	660,6957	665,0094	669,3260	673,6453
160	677,9674	682,2924	686,6203	690,9511	695,2849	699,6217	703,9616	708,3046	712,6507	717,0000
170	721,3525	725,7083	730,0674	734,4299	738,7958	743,1652	747,5380	751,9144	756,2944	760,6781
180	765,0655	769,4566	773,8515	778,2503	782,6530	787,0596	791,4703	795,8851	800,3040	804,7271
190	809,1545	813,5862	818,0222	822,4627	826,9077	831,3573	835,8115	840,2705	844,7342	849,2027
200	853,6762	858,1546	862,6381	867,1267	871,6206	876,1197	880,6242	885,1341	889,6496	894,1707
210	898,6975	903,2300	907,7685	912,3129	916,8633	921,4199	925,9827	930,5519	935,1275	939,7097
220	944,2985	948,8940	953,4964	958,1058	962,7222	967,3458	971,9768	976,6151	981,2610	985,9146

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,8 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,8302	9,0254	13,2179	17,4081	21,5961	25,7822	29,9665	34,1492	38,3304	42,5102
10	46,6888	50,8662	55,0426	59,2181	63,3927	67,5664	71,7395	75,9118	80,0836	84,2548
20	88,4254	92,5956	96,7654	100,9348	105,1038	109,2725	113,4409	117,6091	121,7770	125,9448
30	130,1123	134,2797	138,4470	142,6142	146,7813	150,9484	155,1154	159,2824	163,4494	167,6165
40	171,7836	175,9508	180,1180	184,2854	188,4529	192,6206	196,7884	200,9564	205,1247	209,2931
50	213,4618	217,6308	221,8000	225,9696	230,1395	234,3097	238,4802	242,6512	246,8225	250,9943
60	255,1665	259,3392	263,5123	267,6859	271,8601	276,0348	280,2100	284,3858	288,5621	292,7391
70	296,9167	301,0950	305,2739	309,4535	313,6338	317,8149	321,9966	326,1792	330,3625	334,5466
80	338,7315	342,9173	347,1039	351,2914	355,4798	359,6690	363,8593	368,0505	372,2426	376,4358
90	380,6299	384,8251	389,0213	393,2186	397,4170	401,6165	405,8172	410,0189	414,2219	418,4260
100	422,6314	426,8380	431,0458	435,2549	439,4653	443,6770	447,8900	452,1044	456,3201	460,5373
110	464,7559	468,9759	473,1973	477,4203	481,6447	485,8707	490,0983	494,3274	498,5581	502,7904
120	507,0243	511,2599	515,4972	519,7363	523,9770	528,2195	532,4638	536,7099	540,9579	545,2077
130	549,4593	553,7129	557,9685	562,2260	566,4854	570,7469	575,0105	579,2761	583,5438	587,8137
140	592,0857	596,3598	600,6363	604,9149	609,1958	613,4791	617,7646	622,0526	626,3429	630,6357
150	634,9309	639,2286	643,5289	647,8317	652,1372	656,4452	660,7560	665,0694	669,3856	673,7046
160	678,0263	682,3510	686,6785	691,0090	695,3424	699,6789	704,0184	708,3610	712,7068	717,0557
170	721,4078	725,7632	730,1220	734,4841	738,8496	743,2185	747,5909	751,9669	756,3465	760,7298
180	765,1167	769,5074	773,9019	778,3002	782,7024	787,1086	791,5189	795,9332	800,3516	804,7742
190	809,2011	813,6323	818,0679	822,5079	826,9524	831,4014	835,8551	840,3135	844,7767	849,2447
200	853,7176	858,1954	862,6784	867,1664	871,6597	876,1582	880,6621	885,1714	889,6862	894,2067
210	898,7328	903,2647	907,8025	912,3462	916,8960	921,4519	926,0140	930,5825	935,1573	939,7387
220	944,3268	948,9216	953,5232	958,1317	962,7474	967,3702	972,0003	976,6378	981,2828	985,9355

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 4,9 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	4,9314	9,1260	13,3181	17,5078	21,6955	25,8811	30,0650	34,2473	38,4281	42,6076
10	46,7858	50,9629	55,1389	59,3140	63,4883	67,6617	71,8344	76,0065	80,1779	84,3488
20	88,5191	92,6890	96,8585	101,0276	105,1964	109,3648	113,5329	117,7008	121,8685	126,0359
30	130,2032	134,3704	138,5374	142,7043	146,8712	151,0380	155,2048	159,3716	163,5383	167,7051
40	171,8720	176,0389	180,2060	184,3731	188,5404	192,7078	196,8754	201,0432	205,2112	209,3794
50	213,5479	217,7166	221,8857	226,0550	230,2247	234,3946	238,5650	242,7357	246,9069	251,0784
60	255,2504	259,4229	263,5958	267,7692	271,9431	276,1176	280,2926	284,4681	288,6443	292,8211
70	296,9985	301,1765	305,3552	309,5346	313,7147	317,8955	322,0771	326,2594	330,4425	334,6264
80	338,8111	342,9967	347,1831	351,3703	355,5585	359,7476	363,9376	368,1286	372,3205	376,5134
90	380,7074	384,9023	389,0984	393,2954	397,4936	401,6929	405,8933	410,0949	414,2976	418,5015
100	422,7066	426,9130	431,1206	435,3294	439,5396	443,7511	447,9639	452,1780	456,3936	460,6105
110	464,8288	469,0486	473,2698	477,4925	481,7168	485,9425	490,1698	494,3986	498,6291	502,8612
120	507,0949	511,3302	515,5673	519,8061	524,0466	528,2888	532,5329	536,7787	541,0264	545,2759
130	549,5273	553,7807	558,0359	562,2931	566,5524	570,8136	575,0768	579,3422	583,6096	587,8792
140	592,1509	596,4248	600,7009	604,9793	609,2599	613,5428	617,8281	622,1157	626,4058	630,6982
150	634,9931	639,2906	643,5905	647,8930	652,1981	656,5059	660,8163	665,1294	669,4452	673,7639
160	678,0853	682,4096	686,7368	691,0669	695,4000	699,7361	704,0752	708,4175	712,7628	717,1114
170	721,4631	725,8182	730,1765	734,5382	738,9033	743,2719	747,6439	752,0195	756,3986	760,7814
180	765,1680	769,5582	773,9522	778,3501	782,7519	787,1577	791,5674	795,9813	800,3992	804,8214
190	809,2478	813,6785	818,1135	822,5530	826,9970	831,4456	835,8987	840,3566	844,8192	849,2866
200	853,7590	858,2363	862,7186	867,2061	871,6988	876,1967	880,7000	885,2087	889,7229	894,2427
210	898,7682	903,2995	907,8366	912,3796	916,9287	921,4839	926,0453	930,6130	935,1872	939,7679
220	944,3551	948,9491	953,5500	958,1577	962,7726	967,3946	972,0238	976,6605	981,3047	985,9565

Приложение Г. Удельная энтальпия кДж/кг как функция температуры при давлении 5,0 МПа

T °C	0	1	2	3	4	5	6	7	8	9
0	5,0325	9,2267	13,4183	17,6076	21,7948	25,9800	30,1635	34,3454	38,5258	42,7049
10	46,8827	51,0595	55,2352	59,4099	63,5838	67,7570	71,9293	76,1011	80,2722	84,4428
20	88,6128	92,7824	96,9516	101,1204	105,2889	109,4570	113,6249	117,7925	121,9599	126,1271
30	130,2941	134,4610	138,6278	142,7945	146,9611	151,1276	155,2942	159,4607	163,6272	167,7938
40	171,9604	176,1271	180,2939	184,4608	188,6279	192,7950	196,9624	201,1300	205,2977	209,4657
50	213,6340	217,8025	221,9713	226,1404	230,3098	234,4796	238,6498	242,8203	246,9912	251,1625
60	255,3343	259,5065	263,6792	267,8524	272,0261	276,2004	280,3752	284,5505	288,7265	292,9030
70	297,0802	301,2580	305,4365	309,6157	313,7956	317,9762	322,1576	326,3397	330,5225	334,7062
80	338,8907	343,0760	347,2622	351,4493	355,6372	359,8261	364,0159	368,2067	372,3984	376,5911
90	380,7848	384,9796	389,1754	393,3722	397,5702	401,7693	405,9694	410,1708	414,3733	418,5770
100	422,7819	426,9880	431,1954	435,4040	439,6139	443,8252	448,0378	452,2517	456,4670	460,6837
110	464,9018	469,1213	473,3423	477,5648	481,7888	486,0143	490,2413	494,4699	498,7001	502,9320
120	507,1654	511,4006	515,6374	519,8759	524,1161	528,3581	532,6019	536,8475	541,0949	545,3442
130	549,5953	553,8484	558,1034	562,3603	566,6193	570,8802	575,1432	579,4083	583,6754	587,9447
140	592,2161	596,4898	600,7656	605,0436	609,3240	613,6066	617,8916	622,1789	626,4686	630,7608
150	635,0554	639,3525	643,6521	647,9543	652,2591	656,5665	660,8766	665,1894	669,5049	673,8232
160	678,1443	682,4682	686,7951	691,1248	695,4576	699,7933	704,1321	708,4739	712,8189	717,1671
170	721,5185	725,8731	730,2311	734,5924	738,9571	743,3252	747,6968	752,0720	756,4508	760,8332
180	765,2192	769,6090	774,0026	778,4001	782,8014	787,2067	791,6160	796,0294	800,4469	804,8686
190	809,2945	813,7247	818,1592	822,5982	827,0417	831,4897	835,9424	840,3997	844,8618	849,3287
200	853,8004	858,2772	862,7590	867,2459	871,7379	876,2353	880,7379	885,2460	889,7596	894,2788
210	898,8037	903,3343	907,8707	912,4131	916,9615	921,5160	926,0767	930,6437	935,2171	939,7970
220	944,3836	948,9768	953,5768	958,1838	962,7978	967,4190	972,0474	976,6832	981,3266	985,9775

Видання наукове

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Інститут електродинаміки

ЛЕЖОЄВ РОСТИСЛАВ СТАНІСЛАВОВИЧ

ЄФРЕМОВ ВІКТОР ЄВГЕНОВИЧ

**ТЕПЛОФІЗИЧНІ ВЛАСТИВОСТІ ВОДИ І ПАРИ У ДІАПАЗОНІ
ТЕМПЕРАТУР 0...229 °С І ТИСКУ 0,1...5,0 МПА**

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