

HEAT CONTAINED IN WATER AT DIFFERENT PRESSURES

Heat content from 0°C (32° F)

Pressure		Water temperature		Heat content		Sp. Volume		Density	
psi-g	Bar-g	Fahrenheit	Celcius	BTU lb ⁻¹	kJ kg ⁻¹	Cft lb ⁻¹	m ³ t ⁻¹	lb Cft ⁻¹	t m ⁻³
0	0	212	100	180	419	0.01672	1.04	59.83	0.96
5	0.32	227	108	195	454	0.01684	1.05	59.4	0.95
10	0.65	239	115	207	481	0.01692	1.06	59.1	0.95
20	1.29	259	126	227	528	0.01706	1.06	59.9	0.96
30	1.94	274	134	243	565	0.01721	1.07	58.1	0.93
40	2.58	286	141	256	595	0.01733	1.08	57.7	0.92
50	3.23	297	147	267	621	0.01742	1.09	57.4	0.92
60	3.87	307	153	277	644	0.01751	1.09	57.1	0.91
70	4.52	315	157	286	665	0.01761	1.10	56.8	0.91
80	5.16	324	162	294	684	0.01770	1.10	56.5	0.91
90	5.81	331	166	302	702	0.01778	1.11	56.3	0.90
100	6.45	338	170	309	719	0.01786	1.11	56.0	0.90
110	7.10	344	173	315	733	0.01795	1.12	55.8	0.89
120	7.74	350	177	321	747	0.01800	1.12	55.6	0.89
130	8.39	355	179	327	761	0.01808	1.13	55.4	0.89
140	9.03	361	183	333	775	0.01815	1.13	55.1	0.88
150	9.68	366	186	338	786	0.01821	1.14	54.9	0.88
160	10.32	370	188	343	798	0.01828	1.14	57.7	0.92
170	10.97	375	191	348	809	0.01834	1.14	54.6	0.87
180	11.61	379	193	353	821	0.01839	1.15	54.4	0.87
190	12.26	384	196	357	830	0.01845	1.15	54.2	0.87
200	12.90	388	198	362	842	0.01852	1.16	54.0	0.87
220	14.19	395	202	370	861	0.01863	1.16	53.7	0.86
240	15.48	403	206	378	879	0.01873	1.17	53.4	0.85
260	16.77	410	210	385	896	0.01886	1.18	53.0	0.85
280	18.06	416	213	392	912	0.01895	1.18	52.7	0.84
300	19.35	422	217	399	928	0.01905	1.19	52.5	0.84

Source: Alexander H Hayes (1964). *Steam for Process and Industrial Heating*. p. 153.