

## EK 14. SUYUN ÖZELLİKLERİ

([Ref. e\\_makaleleri](#))

### Suyun 14.7 psia Basıncındaki Özellikleri

Sıcaklık, °F	Yoğunluk, lb <sub>m</sub> /ft <sup>3</sup>	Spesifik Isı Kapasitesi, Btu/lb <sub>m</sub> °R	Viskozite, lb <sub>f</sub> sn/ft <sup>2</sup> x10 <sup>-7</sup>
32	62.42	1.007	366
40	62.42	1.004	323
50	62.42	1.002	272
60	62.38	1.000	235
70	62.31	0.999	204
80	62.23	0.998	177
90	62.11	0.998	160
100	62.00	0.998	142
110	61.88	0.999	126
120	61.73	0.999	114
130	61.54	0.999	105
140	61.39	0.999	96
150	61.20	1.000	89
160	61.01	1.001	83
170	60.79	1.002	77
180	60.57	1.003	72
190	60.35	1.004	68
200	60.10	1.005	62.5
212	kaynama noktası		

**Suyun Farklı Sıcaklık ve Basınlardaki Özellikleri**

Sıcaklık, t, °C	Mutlak basınç, p kN/m <sup>2</sup>	Yoğunluk, $\rho$ , kg/m <sup>3</sup>	Spesifik Hacim, v, m <sup>3</sup> / kgx10 <sup>-3</sup>	Spesifik Isı, c <sub>p</sub> , kJ/ kgK	Spesifik Entropi, s, kJ/ kgK
0 (buz)		916.8			
0.01	0.6	999.8	100	4.210	0
4	0.9	1000.0			
5	0.9	1000.0	100	4.204	0.075
10	1.2	999.8	100	4.193	0.150
15	1.7	999.2	100	4.186	0.223
20	2.3	998.3	100	4.183	0.296
25	3.2	997.1	100	4.181	0.367
30	4.3	995.7	100	4.179	0.438
35	5.6	994.1	101	4.178	0.505
40	7.7	992.3	101	4.179	0.581
45	9.6	990.2	101	4.181	0.637
50	12.5	988	101	4.182	0.707
55	15.7	986	101	4.183	0.767
60	20.0	983	102	4.185	0.832
65	25.0	980	102	4.188	0.893
70	31.3	978	102	4.191	0.966
75	38.6	975	103	4.194	1.016
80	47.5	972	103	4.198	1.076
85	57.8	968	103	4.203	1.134
90	70.0	965	104	4.208	1.192
95	84.5	962	104	4.213	1.250
100	101.33	958	104	4.219	1.307
105	121	954	105	4.226	1.382
110	143	951	105	4.233	1.418
115	169	947	106	4.240	1.473
120	199	943	106	4.248	1.527

Sıcaklık, t, °C	Mutlak basınç, p kN/m <sup>2</sup>	Yoğunluk, $\rho$ , kg/m <sup>3</sup>	Spesifik Hacim, v, m <sup>3</sup> /kgx10 <sup>-3</sup>	Spesifik Isı, c <sub>p</sub> , kJ/ kgK	Spesifik Entropi, s, kJ/ kgK
125	228	939	106	4.26	1.565
130	270	935	107	4.27	1.635
135	313	931	107	4.28	1.687
140	361	926	108	4.29	1.739
145	416	922	108	4.30	1.790
150	477	918	109	4.32	1.842
155	543	912	110	4.34	1.892
160	618	907	110	4.35	1.942
165	701	902	111	4.36	1.992
170	792	897	111	4.38	2.041
175	890	893	112	4.39	2.090
180	1000	887	113	4.42	2.138
185	1120	882	113	4.45	2.187
190	1260	876	114	4.46	2.236
195	1400	870	115		2.282
200	1550	864	116	4.51	2.329
220		840		4.63	
225	2550	834	120	4.65	2.569
240		814		4.78	
250	3990	799	125	4.87	2.797
260		784		4.98	
275	5950	756	132	5.20	3.022
300	8600	714	140	5.65	3.256
325	12130	654	153	6.86	3.501
350	16540	575	174	10.1	3.781
360	18680	528	190	14.6	3.921

Sıcaklık, t, °C	Mutlak basınç, p kN/m <sup>2</sup>	Dinamik Viskozite, μ, cP	Kinematik Viskozite, ν (m <sup>2</sup> /s) x 10 <sup>-6</sup>	Genleşme Katsayısı, (1/K) x 10 <sup>-3</sup>	Spesifik Entalpi, kJ/kg	Prandtl's no.
0.01	0.6	1.78	1.792	-0.07	0	13.67
5	0.9	1.52		0.160	21.0	
10	1.2	1.31	1.304	0.088	41.9	9.47
15	1.7	1.14		0.151	62.9	
20	2.3	1.00	1.004	0.207	83.8	7.01
25	3.2	0.890		0.257	104.8	
30	4.3	0.798	0.801	0.303	125.7	5.43
35	5.6	0.719		0.345	146.7	
40	7.7	0.653	0.658	0.385	167.6	4.34
45	9.6	0.596		0.420	188.6	
50	12.5	0.547	0.553	0.457	209.6	3.56
55	15.7	0.504		0.486	230.5	
60	20.0	0.467	0.474	0.523	251.5	2.99
65	25.0	0.434		0.544	272.4	
70	31.3	0.404	0.413	0.585	293.4	2.56
75	38.6	0.378		0.596	314.3	
80	47.5	0.355	0.365	0.643	335.3	2.23
85	57.8	0.334		0.644	356.2	
90	70.0	0.314	0.326	0.665	377.2	1.96
95	84.5	0.297		0.687	398.1	
100	101.33	0.281	0.295	0.752	419.1	1.75
105	121	0.267			440.2	
110	143	0.253			461.3	
115	169	0.241			482.5	
120	199	0.230	0.249	0.860	503.7	1.45
125	228	0.221			524.3	

Sıcaklık, t, °C	Mutlak basınç, p kN/m <sup>2</sup>	Dinamik Viskozite, μ, cP	Kinematik Viskozite, ν (m <sup>2</sup> /s) x 10 <sup>-6</sup>	Genleşme Katsayısı, (1 /K) x 10 <sup>-3</sup>	Spesifik Entalpi, kJ/kg	Prandtl's no.
130	270	0.212			546.3	
135	313	0.204			567.7	
140	361	0.196	0.215	0.975	588.7	1.25
145	416	0.190			610.0	
150	477	0.185			631.8	
155	543	0.180			653.8	
160	618	0.174	0.189	1.098	674.5	1.09
165	701	0.169			697.3	
170	792	0.163			718.1	
175	890	0.158			739.8	
180	1000	0.153	0.170	1.233	763.1	0.98
185	1120	0.149			785.3	
190	1260	0.145			807.5	
195	1400	0.141			829.9	
200	1550	0.138	0.158	1.392	851.7	0.92
220			0.149	1.597		0.88
225	2550	0.121			966.8	
240			0.142	1.862		0.87
250	3990	0.110			1087	
260			0.137	2.21		0.87
275	5950	0.0972			1211	
300	8600	0.0897			1345	
325	12130	0.0790			1494	
350	16540	0.0648			1672	
360	18680	0.0582			1764	