

TEMPERATURE CONVERSION TABLE

Locate in the centre column of the three columns the temperature in °C or °F to be converted. For given Celsius temperatures, read Fahrenheit equivalent in the left-hand column. For given Fahrenheit temperatures, read the Celsius equivalent in the right hand column.

Examples:

- (a) Given -30°C; convert to Fahrenheit. Locate -30 in the centre column; read -22.0°F in the left-hand column.
 (b) Given -30°F; convert to Celsius. Locate -30 in the centre column; read -34.4°C in the right-hand column.

For temperatures not shown, interpolate from the values listed or use the following equations:

$$^{\circ}\text{C} = \frac{(^{\circ}\text{F}-32) \times 5}{9}$$

$$^{\circ}\text{F} = \frac{^{\circ}\text{C} \times 9}{5} + 32$$

To °F	From	To °C	To °F	From	To °C
-148.0	-100	-73.3	+46.4	+8	-13.3
-130.0	-90	-67.8	+48.2	+9	-12.8
-112.0	-80	-62.2	+50.0	+10	-12.2
-94.0	-70	-56.7	+51.8	+11	-11.7
-76.0	-60	-51.1	+53.6	+12	-11.1
-58.0	-50	-45.6	+55.4	+13	-10.6
-54.4	-48	-44.4	+57.2	+14	-10.0
-50.8	-46	-43.3	+59.0	+15	-9.4
-47.2	-44	-42.2	+60.8	+16	-8.9
-43.6	-42	-41.1	+62.6	+17	-8.3
-40.0	-40	-40.0	+64.4	+18	-7.8
-36.4	-38	-38.9	+66.2	+19	-7.2
-32.8	-36	-37.8	+68.0	+20	-6.7
-29.2	-34	-36.7	+69.8	+21	-6.1
-25.6	-32	-35.6	+71.6	+22	-5.6
-22.0	-30	-34.4	+73.4	+23	-5.0
-18.4	-28	-33.3	+75.2	+24	-4.4
-14.8	-26	-32.2	+77.0	+25	-3.9
-11.2	-24	-31.1	+78.8	+26	-3.3
-7.6	-22	-30.0	+80.6	+27	-2.8
-4.0	-20	-28.9	+82.4	+28	-2.2
-0.4	-18	-27.8	+84.2	+29	-1.7
+3.2	-16	-26.7	+86.0	+30	-1.1
+6.8	-14	-25.6	+87.8	+31	-0.6
+10.4	-12	-24.4	+89.6	+32	0.0
+14.0	-10	-23.3	+91.4	+33	+0.6
+15.8	-9	-22.8	+93.2	+34	+1.1
+17.6	-8	-22.2	+95.0	+35	+1.7
+19.4	-7	-21.7	+96.8	+36	+2.2
+21.2	-6	-21.1	+98.6	+37	+2.8
+23.0	-5	-20.6	+100.4	+38	+3.3
+24.8	-4	-20.0	+102.2	+39	+3.9
+26.6	-3	-19.4	+104.0	+40	+4.4
+28.4	-2	-18.9	+106.8	+41	+5.0
+30.2	-1	-18.3	+107.6	+42	+5.6
+32.0	0	-17.8	+109.4	+43	+6.1
+33.3	+1	-17.2	+111.2	+44	+6.7
+35.6	+2	-16.7	+113.0	+45	+7.2
+37.4	+3	-16.1	+114.8	+46	+7.8
+39.2	+4	-15.6	+116.6	+47	+8.3
+41.0	+5	-15.0	+118.4	+48	+8.9
+42.8	+6	-14.4	+120.2	+49	+9.4
+44.6	+7	-13.9	+122.0	+50	+10.1

TEMPERATURE CONVERSION TABLE (continued)

To °F	From	To °C	To °F	From	To °C
+123.8	+51	+10.6	+226.4	+108	+42.2
+125.6	+52	+11.1	+228.2	+109	+42.8
+127.4	+53	+11.7	+230.0	+110	+43.3
+129.2	+54	+12.2	+231.8	+111	+43.9
+131.0	+55	+12.8	+233.6	+112	+44.4
+132.8	+56	+13.3	+235.4	+113	+45.0
+134.6	+57	+13.9	+237.2	+114	+45.6
+136.4	+58	+14.4	+239.0	+115	+46.1
+138.2	+59	+15.0	+240.8	+116	+46.7
+140.0	+60	+15.6	+242.6	+117	+47.2
+141.8	+61	+16.1	+244.4	+118	+47.8
+143.6	+62	+16.7	+246.2	+119	+48.3
+145.4	+63	+17.2	+248.0	+120	+48.9
+147.2	+64	+17.8	+251.6	+122	+50.0
+149.0	+65	+18.3	+255.2	+124	+51.1
+150.8	+66	+18.9	+258.8	+126	+52.2
+152.6	+67	+19.4	+262.4	+128	+53.3
+154.4	+68	+20.0	+266.0	+130	+54.4
+156.2	+69	+20.6	+269.6	+132	+55.6
+158.0	+70	+21.1	+273.2	+134	+56.7
+159.8	+71	+21.7	+276.8	+136	+57.8
+161.6	+72	+22.2	+280.4	+138	+58.9
+163.4	+73	+22.8	+284.0	+140	+60.0
+165.2	+74	+23.3	+287.6	+142	+61.1
+167.0	+75	+23.9	+291.2	+144	+62.2
+168.8	+76	+24.4	+294.8	+146	+63.3
+170.6	+77	+25.0	+298.4	+148	+64.4
+172.4	+78	+25.6	+302.0	+150	+65.6
+174.2	+79	+26.1	+305.6	+152	+66.7
+176.0	+80	+26.7	+309.2	+154	+67.8
+177.8	+81	+27.2	+312.8	+156	+68.9
+179.6	+82	+27.8	+316.4	+158	+70.0
+181.4	+83	+28.3	+320.0	+160	+71.1
+183.2	+84	+28.9	+323.6	+162	+72.2
+185.0	+85	+29.4	+327.2	+164	+73.3
+186.8	+86	+30.0	+330.8	+166	+74.4
+188.6	+87	+30.6	+334.4	+168	+75.6
+190.4	+88	+31.1	+338.0	+170	+76.7
+192.2	+89	+31.7	+341.6	+172	+77.8
+194.0	+90	+32.2	+345.2	+174	+78.9
+195.8	+91	+32.8	+348.8	+176	+80.0
+197.6	+92	+33.3	+352.4	+178	+81.1
+199.4	+93	+33.9	+356.0	+180	+82.2
+201.2	+94	+34.4	+359.6	+182	+83.3
+203.0	+95	+35.0	+363.2	+184	+84.4
+204.8	+96	+35.6	+366.8	+186	+85.6
+206.6	+97	+36.1	+370.4	+188	+86.7
+208.4	+98	+36.7	+374.0	+190	+87.8
+210.2	+99	+37.2	+377.6	+192	+88.9
+212.0	+100	+37.8	+381.2	+194	+90.0
+213.8	+101	+38.3	+384.8	+196	+91.1
+215.6	+102	+38.9	+388.4	+198	+92.2
+217.4	+103	+39.4	+392.0	+200	+93.3
+219.2	+104	+40.0	+395.6	+202	+94.4
+221.0	+105	+40.6	+399.2	+204	+95.6
+222.8	+106	+41.1	+402.8	+206	+96.7
+224.6	+107	+41.7	+406.4	+208	+97.8

TEMPERATURE CONVERSION TABLE (continued)

To °F	From	To °C	To °F	From	To °C
+410.0	+210	+98.9	+563.0	+295	+146.1
+413.6	+212	+100.0	+572.0	+300	+148.9
+417.2	+214	+101.1	+590.0	+310	+154.4
+420.8	+216	+102.2	+608.0	+320	+160.0
+424.4	+218	+103.3	+626.0	+330	+165.6
+428.0	+220	+104.4	+644.0	+340	+171.1
+437.0	+225	+107.2	+662.0	+350	+176.7
+446.0	+230	+110.0	+680.0	+360	+182.2
+455.0	+235	+112.8	+698.0	+370	+187.8
+464.0	+240	+115.6	+716.0	+380	+193.3
+473.0	+245	+118.3	+734.0	+390	+198.9
+482.0	+250	+121.1	+752.0	+400	+204.4
+491.0	+255	+123.9	+932.0	+500	+260.0
+500.0	+260	+126.7	+1112.0	+600	+315.6
+509.0	+265	+129.4	+1292.0	+700	+371.1
+518.0	+270	+132.2	+1472.0	+800	+427.0
+527.0	+275	+135.0	+1652.0	+900	+482.0
+536.0	+280	+137.8	+1832.0	+1000	+538.0
+545.0	+285	+140.6	+2012.0	+1100	+593.0
+554.0	+290	+143.3	+2192.0	+1200	+649.0

VISCOSITY CONVERSION TABLE

cSt	SUS	cSt	SUS	cSt	SUS
1.8	32	40.6	190	205	950
2.7	35	42.8	200	215	1,000
4.2	40	47.2	220	215	1,000
5.8	45	51.6	240	259	1,200
7.4	50	55.9	260	302	1,400
8.9	55	60.2	280	345	1,600
10.3	60	64.5	300	388	1,800
11.7	65	69.9	325	432	2,000
13.0	70	75.3	350	541	2,500
14.3	75	80.7	375	650	3,000
15.6	80	86.1	400	758	3,500
16.8	85	91.5	425	866	4,000
18.1	90	96.8	450	974	4,500
19.2	95	102.2	475	1,190	5,500
20.4	100	107.6	500	1,300	6,000
22.8	110	118.4	550	1,405	6,500
25.0	120	129.2	600	1,515	7,000
27.4	130	140.3	650	1,625	7,500
29.6	140	151	700	1,730	8,000
31.8	150	162	750	1,840	8,500
34.0	160	173	800	1,950	9,000
36.0	170	183	850	2,055	9,500
38.4	180	194	900	2,165	10,000

DYNAMIC VISCOSITY TO KINEMATIC VISCOSITY CALCULATION

To convert from dynamic viscosity units, centipoise (cP), to kinematic viscosity units, centistokes (cSt), use the following equation:

$$cSt = \frac{cP}{\text{Density (kg/L)}}$$

Note: Viscosity and density must be measured at the same temperature.

If viscosity is known at two or more different temperatures, viscosity at other temperatures can be estimated using standard charts or equations. Charts are available from your local Imperial Oil sales representative or technical services department.