



TA Instruments Specific Heat Capacity Table

Aluminum Oxide Specific Heat Capacity*

°C	K	C_p	$J\ g^{-1}\ ^\circ C^{-1}$
-123.15	150		0.3133
-113.15	160		0.3525
-103.15	170		0.3912
-93.15	180		0.4290
-83.15	190		0.4659
-73.15	200		0.5014
-63.15	210		0.5356
-53.15	220		0.5684
-43.15	230		0.5996
-33.15	240		0.6294
-23.15	250		0.6577
-13.15	260		0.6846
-3.15	270		0.7102
6.85	280		0.7344
16.85	290		0.7574
26.85	300		0.7792
36.85	310		0.7999
46.85	320		0.8194
56.85	330		0.8380
66.85	340		0.8556
76.85	350		0.8721
86.85	360		0.8878
96.85	370		0.9027
106.85	380		0.9168
116.85	390		0.9302
126.85	400		0.9429
136.85	410		0.9550
146.85	420		0.9666

(table continued)

*Taken from ASTM E1269, Standard Test Method for Determining Specific Heat Capacity by Differential Scanning Calorimetry, which references Archer, D.G., *J. Phys. Chem. Ref. Data*, Vol. 22, No. 6, pp. 1441-1453.

*Table (continued)**

°C	K	C_p $J g^{-1} °C^{-1}$
156.85	430	0.9775
166.85	440	0.9879
176.85	450	0.9975
186.85	460	1.0074
196.85	470	1.0164
206.85	480	1.0250
216.85	490	1.0332
226.85	500	1.0411
236.85	510	1.0486
246.85	520	1.0559
256.85	530	1.0628
276.85	550	1.0758
286.85	560	1.0819
296.85	570	1.0877
306.85	580	1.0934
316.85	590	1.0988
326.85	600	1.1040
336.85	610	1.1090
346.85	620	1.1138
356.85	630	1.1184
366.85	640	1.1228
376.85	650	1.1272
386.85	660	1.1313
396.85	670	1.1353
406.85	680	1.1393
416.85	690	1.1431
426.85	700	1.1467
446.85	720	1.1538
466.85	740	1.1605

(table continued)

*Taken from ASTM E1269, Standard Test Method for Determining Specific Heat Capacity by Differential Scanning Calorimetry, which references Archer, D.G., *J. Phys. Chem. Ref. Data*, Vol. 22, No. 6, pp. 1441–1453.

*Table (continued)**

°C	K	C_p	$J g^{-1} C^{-1}$
486.85	760		1.1667
506.85	780		1.1727
526.85	800		1.1784
546.85	820		1.1839
566.85	840		1.1890
586.85	860		1.1939
606.85	880		1.1986
626.85	900		1.2031
636.85	910		1.2053
646.85	920		1.2074
666.85	940		1.2116
686.85	960		1.2155
706.85	980		1.2194
726.85	1000		1.2230

*Taken from ASTM E1269, Standard Test Method for Determining Specific Heat Capacity by Differential Scanning Calorimetry, which references Archer, D.G., *J. Phys. Chem. Ref. Data*, Vol. 22, No. 6, pp. 1441–1453.