C.8 Thermal Properties of Air at Atmospheric Pressure

Temp K	Density ρ kg/m^3	Specific Heat c_p kJ/kg · K	Viscosity $\mu \times 10^5$ kg/m · s	Thermal Conductivity k W/m · K	Thermal Diffusivity $\alpha \times 10^5$ m^2/s	Prandtl Number Pr
200	1.7690	1.0064	1.3286	0.01809	1.0161	0.739
250	1.4133	1.0054	1.5992	0.02227	1.5673	0.722
260	1.3587	1.0054	1.6504	0.02308	1.6896	0.719
270	1.3082	1.0055	1.7005	0.02388	1.8154	0.716
280	1.2614	1.0057	1.7504	0.02467	1.9447	0.714
290	1.2177	1.0060	1.7985	0.02547	2.0792	0.710
300	1.1769	1.0063	1.8465	0.02624	2.2156	0.708
310	1.1389	1.0068	1.8929	0.02701	2.3556	0.705
320	1.1032	1.0073	1.9392	0.02779	2.5008	0.703
330	1.0697	1.0079	1.9855	0.02853	2.6462	0.701
340	1.0382	1.0085	2.0302	0.02928	2.7965	0.699
350	1.0086	1.0092	2.0748	0.03003	2.9503	0.697
360	0.9805	1.0100	2.1177	0.03078	3.1081	0.695
370	0.9539	1.0109	2.1606	0.03150	3.2666	0.693
380	0.9288	1.0120	2.2018	0.03223	3.4289	0.691
390	0.9050	1.0130	2.2447	0.03295	3.5942	0.690
400	0.8822	1.0142	2.2859	0.03365	3.7609	0.689
450	0.7842	1.0212	2.4849	0.03710	4.6327	0.684
500	0.7057	1.0300	2.6703	0.04041	5.5594	0.681

Adapted from *Tables of Thermal Properties of Gases*, National Bureau of Standards Circular 564,Washington, D.C. (1955).