

APF Material Property Table

material	METRIC UNITS							APF optics	ENGLISH UNITS					
	ρ (kg/m ³)	C_p (J/kg-K)	K (W/m-K)	CTE (ppm/C)	α (k/ ρC)	E (GPa)	μ		E (10 ⁶ psi)	ρ (#/in ³)	C_p (J/#-K)	K (W/in-K)	CTE (ppm/F)	α (k/ ρC)
AL 6061-T6	2700	896	166.90	23.60	68.99	69.0	0.33		10.01	0.097	407	4.2393	13.11	1.07E-01
Aluminum Nitride	3200	732	35.15	3.80	15.00	330.0	0.24		47.85	0.115	333	0.8927	2.11	2.33E-02
BAL15Y	2900	745	1.00	7.60	0.46	78.3		F	11.35	0.105	339	0.0254	4.22	7.17E-04
BK7	2510	858	1.11	7.10	0.52	82.0			11.89	0.090	390	0.0282	3.94	7.99E-04
BSL7Y	2500	745	1.18	6.80	0.63	81.1	0.207		11.76	0.090	339	0.0300	3.78	9.84E-04
BSM51Y	3360	650	0.96	6.30	0.44	90.1	0.256		13.06	0.121	295	0.0244	3.50	6.82E-04
CaF2	3180	850	9.71	18.85	3.59	75.8	0.26	C G J	10.99	0.115	386	0.2466	10.47	5.57E-03
Cu OFHC	8900	385	391.00	17.00	114.11	124.5	0.31		18.05	0.321	175	9.9314	9.44	1.77E-01
Delrin	1410		0.36	84.60		3.1			0.45	0.051		0.0091	47.00	
FPL51	3600		0.81	12.70		74.6	0.296		10.82	0.130		0.0207	7.06	
Fused Quartz	2200	670	1.40	0.55	0.95	70.1			10.16	0.079	305	0.0356	0.31	1.47E-03
Fused Silica	2201	741	1.30	0.52	0.80	72.7	0.16		10.54	0.079	337	0.0330	0.29	1.24E-03
I-BSM51Y	3360	650	0.96	6.30	0.44	90.1	0.256	B D	13.06	0.121	295	0.0244	3.50	6.82E-04
I-FPL51Y	3660	745	0.78	13.60	0.29	71.6		E	10.38	0.132	339	0.0198	7.56	4.43E-04
Invar 36	8050	515	10.15	1.50	2.45	148.0	0.29		21.46	0.290	234	0.2578	0.83	3.79E-03
Mylar	1350	1300	0.14	50.00	0.08	3.0	0.4		0.44	0.049	591	0.0036	27.78	1.24E-04
PBM2Y	3610	745	0.81	8.60	0.30	57.1			8.28	0.130	339	0.0206	4.78	4.67E-04
Pyrex 7740	2230	726	1.13	3.25	0.70	64.0			9.28	0.080	330	0.0287	1.81	1.08E-03
RTV560	1420	1465	0.31	200.00	0.15		0.4995		4.6E-04	0.051	666	0.0079	111.11	2.31E-04
S-FPL51	3620	640	0.78	13.10	0.34	72.7	0.299	A	10.54	0.131	291	0.0198	7.28	5.22E-04
S-FPL51Y	3640	640	0.78	13.40	0.33	71.6	0.302		10.38	0.131	291	0.0198	7.44	5.19E-04
S-LAL7	3730	745	0.83	6.70	0.30	95.8		H	13.89	0.134	339	0.0211	3.72	4.63E-04
SST 304	8000	500	16.20	17.30	4.05	196.5	0.29		28.49	0.288	227	0.4115	9.61	6.28E-03
Zerodur	2530	821	1.64	0.00	0.79	90.3	0.240		13.09	0.091	373	0.0417	0.00	1.22E-03