

J-BAF10

 $n_d = 1.670030$
 $n_e = 1.673410$
 $v_d = 47.14$
 $v_e = 46.86$

Glass code (d)
670471
Glass code (e)
673469

Spectral l.	Refractive idx
2.058	1.64083
1.970	1.64204
1.530	1.64770
1.129	1.65310
1.064	1.65414
t	1.65502
s	1.65856
A'	1.661063
r	1.663410
C	1.665785
C'	1.666455
He-Ne	1.667082
D	1.669905
d	1.670030
e	1.673410
F	1.679998
F'	1.680827
g	1.687994
h	1.694772
0.389	1.698973
i	1.706653

Coef. disp. form. (pwr ser.)	
A0	2.72808119E+00
A1	-9.30210914E-03
A2	-7.12221204E-05
A3	2.08031569E-02
A4	4.57311835E-04
A5	-2.96273778E-06
A6	1.63114030E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.014213
F'-C'	0.014372
C-t	0.010760
C-A'	0.004722
d-C	0.004245
e-C	0.007625
g-d	0.017964
g-F	0.007996
h-g	0.006778
i-g	0.018659
C'-t	0.011430
e-C'	0.006955
F'-e	0.007417
i-F'	0.025826

Relative partial dispersion	
C-t/F-C	0.7571
C-A'/F-C	0.3322
d-C/F-C	0.2987
e-C/F-C	0.5365
g-d/F-C	1.2639
g-F/F-C	0.5626
h-g/F-C	0.4769
i-g/F-C	1.3128
C'-t/F'-C'	0.7953
e-C'/F'-C'	0.4839
F'-e/F'-C'	0.5161
i-F'/F'-C'	1.7970

Deviation of relative partial disp.	
ΔPdC	0.0002
ΔPgF	-0.0027

Internal CC (80%/5%)	
367/335	
Color Code (80%/5%)	
380/335	
CCI	
B	0.00
G	0.61
R	0.64

Thermal properties	
CTE(-30,70) [1E-7/°C]	67
CTE(100,300) [1E-7/°C]	83
Tg [°C]	581
At [°C]	640
StP [°C]	539
AP [°C]	578
SP [°C]	732
Ht condct. [W/m·K]	0.985
Sp. heat [kJ/kg·K]	0.564
Ht diffus. [1E-6 m2/sec]	0.489

Chemical properties [class]	
Acid res. (surface)	1
Alkaline detergent res.	1
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	2

Mechanical properties	
Knoop hardness	534 (5)
Abrasion hardness	133
Young's mod. [GPa]	94.8
Shear mod. [GPa]	37.2
Poisson's ratio	0.274
Stress optical coef. [1E-5 nm/cm/Pa]	2.22

Internal trans. (10mm)		
λ [nm]	τ	
280	-	
290	-	
300	-	
310	-	
320	-	
330	0.01	
340	0.13	
350	0.41	
360	0.69	
370	0.85	
380	0.922	
390	0.956	
400	0.973	
420	0.985	
440	0.988	
460	0.991	
480	0.995	
500	0.996	
550	0.999	
600	0.998	
650	0.999	
700	0.999	
800	0.999	
900	0.998	
1000	0.998	
1200	0.998	
1400	0.999	
1600	0.992	
1800	0.983	
2000	0.973	
2200	0.940	
2400	0.89	

Specific gravity	
3.57	

Relative $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90 (ref.)	4.5	4.5	4.7	4.9	5.1	5.3	5.3	5.4	5.6	5.9	6.5	6.6	7.3	8.0	8.5	
60 to 80 (ref.)	4.4	4.4	4.7	4.8	5.0	5.2	5.2	5.3	5.5	5.8	6.3	6.4	7.1	7.8	8.3	
40 to 60	4.2	4.3	4.5	4.7	4.8	5.0	5.1	5.1	5.3	5.6	6.1	6.2	6.9	7.6	8.0	
20 to 40	4.1	4.2	4.4	4.6	4.7	4.9	4.9	5.0	5.2	5.4	6.0	6.0	6.7	7.3	7.8	
0 to 20	4.1	4.1	4.3	4.5	4.6	4.8	4.8	4.9	5.1	5.3	5.8	5.9	6.5	7.2	7.6	
-20 to 0	4.1	4.1	4.3	4.5	4.6	4.8	4.8	4.8	5.0	5.3	5.8	5.8	6.4	7.0	7.5	
-40 to -20	4.1	4.2	4.4	4.5	4.7	4.8	4.8	4.9	5.1	5.3	5.8	5.8	6.4	7.0	7.4	
-60 to -40 (ref.)	4.3	4.3	4.5	4.7	4.8	4.9	5.0	5.0	5.2	5.4	5.8	5.9	6.4	7.0	7.4	
-70 to -60 (ref.)	4.5	4.5	4.7	4.8	5.0	5.1	5.1	5.2	5.4	5.6	6.0	6.1	6.6	7.1	7.5	

Absolute $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90	3.4	3.5	3.7	3.9	4.1	4.3	4.3	4.4	4.6	4.9	5.4	5.5	6.2	7.0	7.5	
60 to 80	3.2	3.3	3.5	3.7	3.9	4.0	4.1	4.1	4.4	4.6	5.2	5.2	5.9	6.6	7.1	
40 to 60	3.0	3.0	3.3	3.4	3.6	3.7	3.8	3.8	4.0	4.3	4.8	4.9	5.6	6.2	6.7	
20 to 40	2.7	2.8	3.0	3.1	3.3	3.4	3.5	3.5	3.7	4.0	4.5	4.6	5.2	5.8	6.3	
0 to 20	2.4	2.5	2.7	2.8	3.0	3.1	3.2	3.2	3.4	3.7	4.1	4.2	4.8	5.4	5.9	
-20 to 0	2.2	2.2	2.4	2.6	2.7	2.8	2.9	2.9	3.1	3.3	3.8	3.9	4.4	5.0	5.4	
-40 to -20	1.9	2.0	2.1	2.3	2.4	2.5	2.6	2.6	2.8	3.0	3.5	3.5	4.1	4.6	5.0	
-60 to -40	1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.3	2.5	2.7	3.1	3.2	3.7	4.2	4.6	
-70 to -60	1.4	1.5	1.7	1.8	1.9	2.0	2.1	2.1	2.3	2.5	2.9	2.9	3.4	3.9	4.3	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.12167309E-01
Q1	9.09103715E+01
P2	1.25830025E-02
Q2	4.36118239E-02
P3	3.52889109E-01
Q3	6.43290245E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.7	4.2
Frac. eq. (ref.)	0.6	5.5

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BAH10	HOYA	BAF10
CDGM	H-ZBaF52	SCHOTT	N-BAF10

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq, Similar glass type