J-BAF8

n_d = 1.623740 n_e = 1.626893

ν_d = 47.01 ν_e = 46.72

Glass code (d)
624470
Glass code (e)
627467

Spectral l.	Refractive idx
2.058	1.59462
1.970	1.59595
1.530	1.60207
1.129	1.60764
1.064	1.60867
t	1.60954
s	1.61296
A'	1.615339
r	1.617550
C	1.619775
C'	1.620402
He-Ne	1.620988
D	1.623623
d	1.623740
e	1.626893
F	1.633044
F'	1.633820
g	1.640541
h	1.646936
0.389	1.650926
i	1.658287

Partial dispersion	
F-C	0.013269
F'-C'	0.013418
C-t	0.010231
C-A'	0.004436
d-C	0.003965
e-C	0.007118
g-d	0.016801
g-F	0.007497
h-g	0.006395
i-g	0.017746
C'-t	0.010858
e-C'	0.006491
F'-e	0.006927
i-F'	0.024467

Relative partial dispersion	
C-t／F-C	0.7710
C-A'／F-C	0.3343
d-C／F-C	0.2988
e-C／F-C	0.5364
g-d／F-C	1.2662
g-F／F-C	0.5650
h-g／F-C	0.4820
i-g／F-C	1.3374
C'-t／F'-C'	0.8092
e-C'／F'-C'	0.4838
F'-e／F'-C'	0.5162
i-F'／F'-C'	1.8234

Deviation of relative partial disp.	
ΔPdC	0.0004
ΔPgF	−0.0005

Internal CC (80%/5%)
373/343
Color Code (80%/5%)
385/345

CCI	
B	0.00
G	0.67
R	0.64

Thermal properties	
CTE(−30,70) [1E-7/℃]	67
CTE(100,300) [1E-7/℃]	80
Tg [℃]	589
At [℃]	641
StP [℃]	540
AP [℃]	578
SP [℃]	721
Ht cndct. [W/m･K]	0.960
Sp. heat [kJ/kg･K]	0.663
Ht diffus. [1E-6 m2/sec]	0.461

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

Mechanical properties	
Knoop hardness	511 (5)
Abrasion hardness	124
Young's mod. [GPa]	85.7
Shear mod. [GPa]	34.0
Poisson's ratio	0.261
Stress optical coef. [1E-5 nm/cm／Pa]	2.72

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	–
300	–
310	–
320	–
330	–
340	0.03
350	0.19
360	0.51
370	0.76
380	0.88
390	0.941
400	0.967
420	0.985
440	0.989
460	0.992
480	0.995
500	0.996
550	0.998
600	0.997
650	0.997
700	0.999
800	0.999
900	0.999
1000	0.999
1200	0.999
1400	0.990
1600	0.990
1800	0.979
2000	0.966
2200	0.901
2400	0.82

Specific gravity
3.14

Coef. disp. form. (pwr ser.)	
A0	2.58219095E+00
A1	−9.86301021E−03
A2	−1.16286506E−04
A3	1.89733467E−02
A4	2.19248923E−04
A5	4.98624477E−05
A6	−4.45223153E−06
A7	3.07817299E−07
A8	0.00000000E+00

Relative Δn/ΔT [1E-6/℃]															
Temp. [℃]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389
80 to 90 (ref.)	3.5	3.6	3.8	4.0	4.1	4.3	4.3	4.4	4.6	4.8	5.4	5.4	6.1	6.8	7.3
60 to 80 (ref.)	3.4	3.5	3.7	3.8	4.0	4.1	4.2	4.2	4.4	4.7	5.2	5.3	5.9	6.6	7.1
40 to 60	3.3	3.3	3.5	3.7	3.8	4.0	4.0	4.1	4.2	4.5	5.0	5.1	5.7	6.3	6.6
20 to 40	3.2	3.2	3.4	3.5	3.7	3.8	3.9	3.9	4.1	4.3	4.8	4.9	5.5	6.1	6.5
0 to 20	3.1	3.2	3.3	3.5	3.6	3.7	3.8	3.8	4.0	4.2	4.7	4.7	5.3	5.9	6.3
−20 to 0	3.1	3.1	3.3	3.4	3.5	3.7	3.7	3.8	3.9	4.1	4.6	4.6	5.2	5.7	6.2
−40 to −20	3.1	3.2	3.3	3.5	3.6	3.7	3.7	3.8	3.9	4.1	4.5	4.6	5.1	5.7	6.1
−60 to −40 (ref.)	3.3	3.3	3.5	3.6	3.7	3.8	3.8	3.9	4.0	4.2	4.6	4.7	5.2	5.7	6.1
−70 to −60 (ref.)	3.4	3.5	3.6	3.7	3.8	4.0	4.0	4.0	4.2	4.4	4.7	4.8	5.3	5.8	6.1

Absolute Δn/ΔT [1E-6/℃]															
Temp. [℃]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389
80 to 90	2.5	2.6	2.8	3.0	3.1	3.3	3.3	3.4	3.6	3.8	4.3	4.4	5.1	5.8	6.3
60 to 80	2.3	2.4	2.6	2.7	2.9	3.0	3.1	3.1	3.3	3.6	4.1	4.1	4.8	5.5	5.9
40 to 60	2.1	2.1	2.3	2.4	2.6	2.7	2.8	2.8	3.0	3.2	3.7	3.8	4.4	5.0	5.5
20 to 40	1.8	1.8	2.0	2.1	2.3	2.4	2.5	2.5	2.7	2.9	3.4	3.4	4.0	4.6	5.1
0 to 20	1.5	1.6	1.7	1.9	2.0	2.1	2.2	2.2	2.4	2.6	3.0	3.1	3.6	4.2	4.6
−20 to 0	1.2	1.3	1.4	1.6	1.7	1.8	1.8	1.9	2.0	2.2	2.7	2.7	3.2	3.8	4.2
−40 to −20	1.0	1.0	1.2	1.3	1.4	1.5	1.5	1.6	1.7	1.9	2.3	2.4	2.9	3.4	3.8
−60 to −40	0.7	0.7	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.6	2.0	2.0	2.5	3.0	3.3
−70 to −60	0.5	0.5	0.7	0.8	0.9	1.0	1.0	1.0	1.2	1.3	1.7	1.7	2.2	2.7	3.0

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.10512594E−01
Q1	7.79743638E+01
P2	9.62875752E−03
Q2	5.14298507E−02
P3	3.35700552E−01
Q3	6.49937209E−03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	7.4
Frac. eq. (ref.)	0.8	7.6

Prod. Freq. (A to D)	D

Similar glass type			
OHARA	−	HOYA	E-BAF8
CDGM	−	SCHOTT	−

2022-7-1	StP, AP, SP
2020-4-1	chemical properties
2019-4-1	Transmittance

HIKARI GLASS CO., LTD.