J-BAK1

n_d = 1.572500 n_e = 1.574882

ν_d = 57.30 ν_e = 57.01

Glass code (d)
573573
Glass code (e)
575570

Spectral l.	Refractive idx
2.058	1.54903
1.970	1.55016
1.530	1.55531
1.129	1.55991
1.064	1.56075
t	1.56145
s	1.56417
A'	1.566036
r	1.567755
C	1.569472
C'	1.569953
He-Ne	1.570402
D	1.572411
d	1.572500
e	1.574882
F	1.579464
F'	1.580036
g	1.584931
h	1.589484
0.389	1.592266
i	1.597270

Partial dispersion	
F-C	0.009992
F'-C'	0.010083
C-t	0.008023
C-A'	0.003436
d-C	0.003028
e-C	0.005410
g-d	0.012431
g-F	0.005467
h-g	0.004553
i-g	0.012339
C'-t	0.008504
e-C'	0.004929
F'-e	0.005154
i-F'	0.017234

Relative partial dispersion	
C-t／F-C	0.8029
C-A'／F-C	0.3439
d-C／F-C	0.3030
e-C／F-C	0.5414
g-d／F-C	1.2441
g-F／F-C	0.5471
h-g／F-C	0.4557
i-g／F-C	1.2349
C'-t／F'-C'	0.8434
e-C'／F'-C'	0.4888
F'-e／F'-C'	0.5112
i-F'／F'-C'	1.7092

Deviation of relative partial disp.	
ΔPdC	0.0000
ΔPgF	−0.0011

Internal CC (80%/5%)
324/281
Color Code (80%/5%)
335/280

CCI	
B	0.00
G	0.07
R	0.05

Thermal properties	
CTE(−30,70) [1E-7/℃]	73
CTE(100,300) [1E-7/℃]	83
Tg [℃]	599
At [℃]	656
StP [℃]	540
AP [℃]	584
SP [℃]	757
Ht cndct. [W/m･K]	0.936
Sp. heat [kJ/kg･K]	0.618
Ht diffus. [1E-6 m2/sec]	0.476

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

Mechanical properties	
Knoop hardness	467 (5)
Abrasion hardness	138
Young's mod. [GPa]	73.3
Shear mod. [GPa]	29.3
Poisson's ratio	0.251
Stress optical coef. [1E-5 nm/cm／Pa]	3.02

Internal trans. (10mm)	
λ [nm]	τ
280	0.05
290	0.14
300	0.33
310	0.55
320	0.74
330	0.86
340	0.928
350	0.964
360	0.981
370	0.989
380	0.992
390	0.995
400	0.996
420	0.997
440	0.996
460	0.996
480	0.997
500	0.998
550	0.998
600	0.998
650	0.997
700	0.998
800	0.998
900	0.997
1000	0.997
1200	0.996
1400	0.989
1600	0.990
1800	0.976
2000	0.965
2200	0.916
2400	0.88

Specific gravity
3.17

Coef. disp. form. (pwr ser.)	
A0	2.43258691E+00
A1	−8.22086723E−03
A2	−9.21764324E−05
A3	1.43187501E−02
A4	1.59799832E−04
A5	8.58344462E−06
A6	−1.00538104E−07
A7	0.00000000E+00
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.)	3.1	3.2	3.3	3.4	3.5	3.7	3.7	3.7	3.9	4.0	4.4	4.4	4.8	5.2	5.4
60 to 80 (ref.)	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.8	4.1	4.2	4.5	4.9	5.2
40 to 60	2.7	2.7	2.8	2.9	3.0	3.1	3.2	3.2	3.3	3.5	3.8	3.8	4.2	4.6	4.8
20 to 40	2.4	2.5	2.6	2.7	2.8	2.9	2.9	2.9	3.1	3.2	3.5	3.6	3.9	4.3	4.5
0 to 20	2.2	2.2	2.4	2.5	2.6	2.7	2.7	2.7	2.8	3.0	3.3	3.3	3.7	4.0	4.3
−20 to 0	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.7	2.8	3.1	3.1	3.5	3.8	4.1
−40 to −20	2.0	2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.6	2.7	3.0	3.0	3.4	3.7	3.9
−60 to −40 (ref.)	1.9	2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.5	2.7	3.0	3.0	3.3	3.7	3.9
−70 to −60 (ref.)	2.0	2.0	2.2	2.3	2.3	2.4	2.5	2.5	2.6	2.7	3.0	3.0	3.4	3.7	3.9

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	2.2	2.2	2.4	2.5	2.6	2.7	2.7	2.7	2.9	3.0	3.4	3.4	3.8	4.2	4.4
60 to 80	1.9	1.9	2.1	2.2	2.3	2.4	2.4	2.4	2.6	2.7	3.0	3.1	3.4	3.8	4.1
40 to 60	1.5	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.3	2.6	2.6	3.0	3.3	3.6
20 to 40	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	2.1	2.2	2.5	2.9	3.1
0 to 20	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.7	1.7	2.1	2.4	2.7
−20 to 0	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	1.0	1.3	1.3	1.6	2.0	2.2
−40 to −20	−0.1	−0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.6	0.8	0.9	1.2	1.5	1.7
−60 to −40	−0.5	−0.5	−0.4	−0.3	−0.2	−0.2	−0.1	−0.1	0.0	0.1	0.4	0.4	0.7	1.0	1.2
−70 to −60	−0.9	−0.8	−0.7	−0.6	−0.6	−0.5	−0.5	−0.4	−0.3	−0.2	0.1	0.1	0.4	0.7	0.9

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.25334798E−01
Q1	9.83783343E+01
P2	2.36950126E−02
Q2	2.51187977E−02
P3	2.99538486E−01
Q3	5.24516443E−03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	5.7
Frac. eq. (ref.)	0.6	6.7

Prod. Freq. (A to D)	C

Similar glass type			
OHARA	−	HOYA	−
CDGM	H-BaK8	SCHOTT	N-BAK1

2022-7-1	StP, AP, SP
2020-4-1	Similar glass type
2019-4-1	Transmittance

HIKARI GLASS CO., LTD.