

J-BAK1

$n_d = 1.572500$

$n_e = 1.574882$

$v_d = 57.30$

$v_e = 57.01$

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

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

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/°C]	73
CTE(100,300) [1E-7/°C]	83
Tg [°C]	599
At [°C]	656
Ht condct. [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	

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.)	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 $\Delta n / \Delta T$ [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	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	S-BAL11	HOYA	-
CDGM	H-BaK8	SCHOTT	N-BAK1

2019-4-1	Transmittance
2018-4-1	Prod. Freq.
2015-4-1	Color Code, Similar glass type