J-LAK01

n_d = 1.640000 n_e = 1.642536

ν_d = 60.20 ν_e = 59.99

Glass code (d)
640602
Glass code (e)
643600

Spectral l.	Refractive idx
2.058	1.61017
1.970	1.61186
1.530	1.61943
1.129	1.62567
1.064	1.62673
t	1.62760
s	1.63083
A'	1.632955
r	1.634863
C	1.636739
C'	1.637261
He-Ne	1.637746
D	1.639905
d	1.640000
e	1.642536
F	1.647371
F'	1.647972
g	1.653088
h	1.657818
0.389	1.660696
i	1.665852

Partial dispersion	
F-C	0.010632
F'-C'	0.010711
C-t	0.009136
C-A'	0.003784
d-C	0.003261
e-C	0.005797
g-d	0.013088
g-F	0.005717
h-g	0.004730
i-g	0.012764
C'-t	0.009658
e-C'	0.005275
F'-e	0.005436
i-F'	0.017880

Relative partial dispersion	
C-t／F-C	0.8593
C-A'／F-C	0.3559
d-C／F-C	0.3067
e-C／F-C	0.5452
g-d／F-C	1.2310
g-F／F-C	0.5377
h-g／F-C	0.4449
i-g／F-C	1.2005
C'-t／F'-C'	0.9017
e-C'／F'-C'	0.4925
F'-e／F'-C'	0.5075
i-F'／F'-C'	1.6693

Deviation of relative partial disp.	
ΔPdC	0.0023
ΔPgF	−0.0056

Internal CC (80%/5%)
357/297
Color Code (80%/5%)
370/300
CCI

B	0.00
G	0.44
R	0.39

Thermal properties	
CTE(−30,70) [1E-7/℃]	60
CTE(100,300) [1E-7/℃]	77
Tg [℃]	655
At [℃]	679
StP [℃]	610
AP [℃]	638
SP [℃]	736
Ht cndct. [W/m･K]	1.170
Sp. heat [kJ/kg･K]	0.775
Ht diffus. [1E-6 m2/sec]	0.501

Chemical properties [class]	
Acid res. (surface)	6
Alkaline detergent res.	4
Climate resistance	4
Water res. (powder)	4
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	622 (6)
Abrasion hardness	92
Young's mod. [GPa]	131.6
Shear mod. [GPa]	49.7
Poisson's ratio	0.323
Stress optical coef. [1E-5 nm/cm／Pa]	2.22

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	0.03
300	0.07
310	0.15
320	0.28
330	0.44
340	0.60
350	0.74
360	0.84
370	0.904
380	0.942
390	0.963
400	0.976
420	0.987
440	0.991
460	0.993
480	0.996
500	0.997
550	0.998
600	0.996
650	0.997
700	0.997
800	0.996
900	0.996
1000	0.997
1200	0.998
1400	0.993
1600	0.990
1800	0.976
2000	0.955
2200	0.87
2400	0.62

Specific gravity
3.01

Coef. disp. form. (pwr ser.)	
A0	2.64746203E+00
A1	−1.31056736E-02
A2	−1.66347533E-04
A3	1.55169536E-02
A4	1.92870468E-04
A5	4.84379496E-06
A6	−7.97499057E-09
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.)	2.9	2.9	3.0	3.1	3.2	3.3	3.4	3.4	3.5	3.7	4.0	4.0	4.4	4.8	5.0
60 to 80 (ref.)	2.8	2.8	2.9	3.0	3.1	3.2	3.2	3.3	3.4	3.5	3.9	3.9	4.3	4.6	4.8
40 to 60	2.7	2.7	2.8	2.9	3.0	3.1	3.1	3.1	3.2	3.4	3.7	3.7	4.1	4.4	4.6
20 to 40	2.6	2.6	2.7	2.8	2.9	3.0	3.0	3.0	3.1	3.3	3.6	3.6	3.9	4.2	4.4
0 to 20	2.5	2.5	2.6	2.7	2.8	2.9	2.9	2.9	3.0	3.2	3.5	3.5	3.8	4.1	4.3
−20 to 0	2.5	2.5	2.6	2.7	2.8	2.8	2.9	2.9	3.0	3.1	3.4	3.4	3.7	4.0	4.2
−40 to −20	2.5	2.6	2.6	2.7	2.8	2.9	2.9	2.9	3.0	3.2	3.4	3.5	3.7	4.0	4.2
−60 to −40 (ref.)	2.7	2.7	2.8	2.9	2.9	3.0	3.0	3.1	3.2	3.3	3.5	3.6	3.8	4.1	4.3
−70 to −60 (ref.)	2.9	2.9	3.0	3.0	3.1	3.2	3.2	3.2	3.3	3.4	3.7	3.7	4.0	4.3	4.4

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	1.9	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.7	3.0	3.0	3.4	3.7	3.9
60 to 80	1.7	1.7	1.8	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.7	2.8	3.1	3.5	3.6
40 to 60	1.4	1.5	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.1	2.4	2.5	2.8	3.1	3.3
20 to 40	1.2	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.8	2.1	2.1	2.5	2.8	2.9
0 to 20	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.3	1.4	1.5	1.8	1.8	2.1	2.4	2.6
−20 to 0	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.2	1.5	1.5	1.8	2.1	2.2
−40 to −20	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.9	1.2	1.2	1.5	1.7	1.9
−60 to −40	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.1	1.4	1.5
−70 to −60	−0.1	−0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.4	0.6	0.6	0.9	1.1	1.3

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.29784042E-01
Q1	7.09731124E+01
P2	7.95375652E-02
Q2	1.51159467E-02
P3	2.74972273E-01
Q3	3.44195443E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	1.3
Frac. eq. (ref.)	0.4	1.5

Prod. Freq. (A to D)	C

Similar glass type			
OHARA	S-BSM81	HOYA	LACL60
CDGM	H-LaK4L	SCHOTT	N-LAK21

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2018-4-1	Prod. Freq.

HIKARI GLASS CO., LTD.