J-LAF010

n_d = 1.743200 n_e = 1.746793

ν_d = 49.26 ν_e = 49.02

Glass code (d)
743493
Glass code (e)
747490

Spectral l.	Refractive idx
2.058	1.70838
1.970	1.71005
1.530	1.71766
1.129	1.72442
1.064	1.72567
t	1.72670
s	1.73073
A'	1.733512
r	1.736078
C	1.738649
C'	1.739371
He-Ne	1.740045
D	1.743066
d	1.743200
e	1.746793
F	1.753737
F'	1.754607
g	1.762074
h	1.769060
0.389	1.773349
i	1.781104

Coef. disp. form. (pwr ser.)	
A0	2.97218511E+00
A1	-1.32235298E-02
A2	-1.74821942E-04
A3	2.33639677E-02
A4	3.84261692E-04
A5	9.20777694E-06
A6	3.19655312E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.015088
F'-C'	0.015236
C-t	0.011947
C-A'	0.005137
d-C	0.004551
e-C	0.008144
g-d	0.018874
g-F	0.008337
h-g	0.006986
i-g	0.019030
C'-t	0.012669
e-C'	0.007422
F'-e	0.007814
i-F'	0.026497

Relative partial dispersion	
C-t／F-C	0.7918
C-A'／F-C	0.3405
d-C／F-C	0.3016
e-C／F-C	0.5398
g-d／F-C	1.2509
g-F／F-C	0.5526
h-g／F-C	0.4630
i-g／F-C	1.2613
C'-t／F'-C'	0.8315
e-C'／F'-C'	0.4871
F'-e／F'-C'	0.5129
i-F'／F'-C'	1.7391

Deviation of relative partial disp.	
ΔPdC	0.0022
ΔPgF	−0.0092

Internal CC (80%/5%)
354/301
Color Code (80%/5%)
375/300

CCI	
B	0.00
G	0.50
R	0.48

Thermal properties	
CTE(−30,70) [1E-7/℃]	49
CTE(100,300) [1E-7/℃]	63
Tg [℃]	597
At [℃]	627
StP [℃]	550
AP [℃]	578
SP [℃]	679
Ht cndct. [W/m･K]	0.820
Sp. heat [kJ/kg･K]	0.542
Ht diffus. [1E-6 m2/sec]	0.365

Chemical properties [class]	
Acid res. (surface)	5
Alkaline detergent res.	4
Climate resistance	1
Water res. (powder)	1
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	585 (6)
Abrasion hardness	64
Young's mod. [GPa]	106.8
Shear mod. [GPa]	40.8
Poisson's ratio	0.308
Stress optical coef. [1E-5 nm/cm／Pa]	2.63

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	–
300	0.04
310	0.16
320	0.32
330	0.50
340	0.64
350	0.76
360	0.85
370	0.911
380	0.945
390	0.965
400	0.976
420	0.986
440	0.990
460	0.993
480	0.996
500	0.998
550	0.998
600	0.998
650	0.998
700	0.998
800	0.996
900	0.994
1000	0.996
1200	0.998
1400	0.997
1600	0.992
1800	0.983
2000	0.958
2200	0.89
2400	0.65

Specific gravity
4.15

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.)	7.8	7.9	8.1	8.3	8.5	8.7	8.7	8.8	9.0	9.3	10.0	10.0	10.8	11.5	11.9
60 to 80 (ref.)	7.7	7.7	8.0	8.1	8.3	8.5	8.6	8.6	8.9	9.1	9.8	9.8	10.6	11.2	11.7
40 to 60	7.5	7.5	7.8	7.9	8.1	8.3	8.3	8.4	8.6	8.9	9.5	9.6	10.3	10.9	11.3
20 to 40	7.3	7.4	7.6	7.8	7.9	8.1	8.2	8.2	8.4	8.7	9.3	9.3	10.0	10.6	11.0
0 to 20	7.2	7.3	7.5	7.6	7.8	8.0	8.0	8.1	8.3	8.5	9.1	9.1	9.8	10.4	10.8
−20 to 0	7.2	7.2	7.4	7.5	7.7	7.9	7.9	8.0	8.2	8.4	8.9	9.0	9.6	10.2	10.6
−40 to −20	7.2	7.2	7.4	7.5	7.7	7.9	7.9	7.9	8.1	8.4	8.9	8.9	9.5	10.1	10.4
−60 to −40 (ref.)	7.3	7.3	7.5	7.6	7.8	7.9	8.0	8.0	8.2	8.4	8.9	9.0	9.5	10.1	10.4
−70 to −60 (ref.)	7.4	7.5	7.6	7.8	7.9	8.1	8.1	8.2	8.3	8.6	9.0	9.1	9.6	10.2	10.5

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	6.8	6.8	7.0	7.2	7.4	7.6	7.7	7.7	8.0	8.3	8.9	8.9	9.7	10.4	10.8
60 to 80	6.5	6.6	6.8	7.0	7.1	7.3	7.4	7.4	7.7	8.0	8.6	8.6	9.3	10.0	10.4
40 to 60	6.2	6.2	6.4	6.6	6.8	7.0	7.0	7.1	7.3	7.6	8.1	8.2	8.9	9.5	9.9
20 to 40	5.9	5.9	6.1	6.3	6.4	6.6	6.6	6.7	6.9	7.2	7.7	7.8	8.4	9.1	9.4
0 to 20	5.5	5.6	5.7	5.9	6.1	6.2	6.3	6.3	6.5	6.8	7.3	7.4	8.0	8.6	8.9
−20 to 0	5.2	5.2	5.4	5.6	5.7	5.9	5.9	6.0	6.2	6.4	6.9	7.0	7.6	8.1	8.5
−40 to −20	4.9	4.9	5.1	5.2	5.3	5.5	5.5	5.6	5.8	6.0	6.5	6.5	7.1	7.7	8.0
−60 to −40	4.5	4.6	4.7	4.8	5.0	5.1	5.2	5.2	5.4	5.6	6.1	6.1	6.7	7.2	7.5
−70 to −60	4.3	4.3	4.4	4.6	4.7	4.9	4.9	4.9	5.1	5.3	5.8	5.8	6.3	6.8	7.1

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.13189864E-01
Q1	7.01648764E+01
P2	3.86205423E-02
Q2	2.54497766E-02
P3	3.58049310E-01
Q3	5.15734963E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	5.1
Frac. eq. (ref.)	0.5	5.3

Prod. Freq. (A to D)	C

Similar glass type			
OHARA	S-LAM60	HOYA	NBF1
CDGM	H-LaF53	SCHOTT	N-LAF35

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

HIKARI GLASS CO., LTD.