J-LAF3

n_d = 1.717000 n_e = 1.720556

ν_d = 47.98 ν_e = 47.71

Glass code (d)
717480
Glass code (e)
721477

Spectral l.	Refractive idx
2.058	1.68438
1.970	1.68584
1.530	1.69261
1.129	1.69881
1.064	1.69998
t	1.70095
s	1.70480
A'	1.707495
r	1.709998
C	1.712517
C'	1.713226
He-Ne	1.713889
D	1.716868
d	1.717000
e	1.720556
F	1.727462
F'	1.728330
g	1.735809
h	1.742854
0.389	1.747207
i	1.755135

Coef. disp. form. (pwr ser.)	
A0	2.88297779E+00
A1	-1.15922463E-02
A2	-1.15749419E-04
A3	2.24704179E-02
A4	4.75179381E-04
A5	-1.96471810E-06
A6	1.41116684E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.014945
F'-C'	0.015104
C-t	0.011564
C-A'	0.005022
d-C	0.004483
e-C	0.008039
g-d	0.018809
g-F	0.008347
h-g	0.007045
i-g	0.019326
C'-t	0.012273
e-C'	0.007330
F'-e	0.007774
i-F'	0.026805

Relative partial dispersion	
C-t／F-C	0.7738
C-A'／F-C	0.3360
d-C／F-C	0.3000
e-C／F-C	0.5379
g-d／F-C	1.2585
g-F／F-C	0.5585
h-g／F-C	0.4714
i-g／F-C	1.2931
C'-t／F'-C'	0.8126
e-C'／F'-C'	0.4853
F'-e／F'-C'	0.5147
i-F'／F'-C'	1.7747

Deviation of relative partial disp.	
ΔPdC	0.0011
ΔPgF	-0.0053

Internal CC (80%/5%)
365/333
Color Code (80%/5%)
380/335

CCI	
B	0.00
G	0.56
R	0.55

Thermal properties	
CTE(-30,70) [1E-7/℃]	61
CTE(100,300) [1E-7/℃]	79
Tg [℃]	640
At [℃]	681
StP [℃]	595
AP [℃]	628
SP [℃]	746
Ht cndct. [W/m･K]	0.767
Sp. heat [kJ/kg･K]	0.516
Ht diffus. [1E-6 m2/sec]	0.378

Chemical properties [class]	
Acid res. (surface)	5
Alkaline detergent res.	2
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	526 (5)
Abrasion hardness	131
Young's mod. [GPa]	99.0
Shear mod. [GPa]	38.4
Poisson's ratio	0.291
Stress optical coef. [1E-5 nm/cm／Pa]	2.00

Internal trans. (10mm)	
λ [nm]	τ
280	-
290	-
300	-
310	-
320	-
330	0.02
340	0.16
350	0.45
360	0.71
370	0.86
380	0.925
390	0.957
400	0.973
420	0.985
440	0.990
460	0.993
480	0.995
500	0.997
550	0.999
600	0.998
650	0.998
700	0.998
800	0.997
900	0.995
1000	0.996
1200	0.998
1400	0.993
1600	0.993
1800	0.986
2000	0.970
2200	0.921
2400	0.77

Specific gravity
3.93

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.)	3.7	3.7	3.9	4.1	4.2	4.4	4.5	4.5	4.8	5.0	5.6	5.7	6.4	7.1	7.5
60 to 80 (ref.)	3.6	3.6	3.8	4.0	4.1	4.3	4.4	4.4	4.6	4.9	5.4	5.5	6.2	6.8	7.3
40 to 60	3.4	3.5	3.7	3.8	4.0	4.2	4.2	4.2	4.5	4.7	5.2	5.3	5.9	6.6	7.0
20 to 40	3.4	3.4	3.6	3.7	3.9	4.0	4.1	4.1	4.3	4.6	5.1	5.1	5.7	6.4	6.7
0 to 20	3.3	3.3	3.5	3.7	3.8	4.0	4.0	4.0	4.2	4.5	4.9	5.0	5.6	6.2	6.5
-20 to 0	3.3	3.3	3.5	3.6	3.8	3.9	4.0	4.0	4.2	4.4	4.9	4.9	5.5	6.1	6.4
-40 to -20	3.4	3.4	3.6	3.7	3.8	4.0	4.0	4.1	4.2	4.4	4.9	4.9	5.5	6.0	6.3
-60 to -40 (ref.)	3.5	3.6	3.7	3.9	4.0	4.1	4.2	4.2	4.4	4.6	5.0	5.0	5.5	6.0	6.3
-70 to -60 (ref.)	3.7	3.8	3.9	4.0	4.2	4.3	4.3	4.4	4.5	4.7	5.1	5.2	5.7	6.2	6.5

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	2.6	2.7	2.8	3.0	3.2	3.4	3.4	3.5	3.7	3.9	4.5	4.6	5.3	5.9	6.4
60 to 80	2.4	2.5	2.6	2.8	3.0	3.1	3.2	3.2	3.5	3.7	4.2	4.3	5.0	5.6	6.1
40 to 60	2.2	2.2	2.4	2.5	2.7	2.8	2.9	2.9	3.1	3.4	3.9	4.0	4.6	5.2	5.6
20 to 40	1.9	1.9	2.1	2.2	2.4	2.6	2.6	2.6	2.8	3.1	3.6	3.6	4.2	4.8	5.2
0 to 20	1.6	1.7	1.8	2.0	2.1	2.3	2.3	2.3	2.5	2.7	3.2	3.3	3.8	4.4	4.8
-20 to 0	1.4	1.4	1.5	1.7	1.8	2.0	2.0	2.0	2.2	2.4	2.9	2.9	3.5	4.0	4.3
-40 to -20	1.1	1.1	1.3	1.4	1.5	1.7	1.7	1.7	1.9	2.1	2.5	2.6	3.1	3.6	3.9
-60 to -40	0.8	0.9	1.0	1.1	1.2	1.4	1.4	1.4	1.6	1.8	2.2	2.2	2.7	3.2	3.5
-70 to -60	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.4	1.5	1.9	2.0	2.4	2.9	3.1

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.07530916E-01
Q1	7.45015661E+01
P2	1.48535752E-02
Q2	3.95541614E-02
P3	3.70747892E-01
Q3	6.11229540E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	4.2
Frac. eq. (ref.)	0.6	4.8

Prod. Freq. (A to D)	C

Similar glass type			
OHARA	S-LAM3	HOYA	LAF3
CDGM	H-LaF2	SCHOTT	-

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