

J-LASF021

$n_d = 1.850260$

$n_e = 1.856474$

$v_d = 32.35$

$v_e = 32.11$

Glass code (d)	850324
Glass code (e)	856321

Spectral l.	Refractive idx
2.058	1.80323
1.970	1.80489
1.530	1.81290
1.129	1.82107
1.064	1.82273
t	1.82415
s	1.83001
A'	1.834300
r	1.838396
C	1.842602
C'	1.843800
He-Ne	1.844925
D	1.850031
d	1.850260
e	1.856474
F	1.868883
F'	1.870475
g	1.884512
h	1.898302
0.389	1.907144
i	-

Coef. disp. form. (pwr ser.)	
A0	3.30477446E+00
A1	-1.45925795E-02
A2	0.00000000E+00
A3	3.59916632E-02
A4	3.49591839E-03
A5	-7.43189237E-04
A6	1.55265866E-04
A7	-1.52961037E-05
A8	6.59677491E-07

Partial dispersion	
F-C	0.026281
F'-C'	0.026675
C-t	0.018451
C-A'	0.008302
d-C	0.007658
e-C	0.013872
g-d	0.034252
g-F	0.015629
h-g	0.013790
i-g	-
C'-t	0.019649
e-C'	0.012674
F'-e	0.014001
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7021
C-A'/F-C	0.3159
d-C/F-C	0.2914
e-C/F-C	0.5278
g-d/F-C	1.3033
g-F/F-C	0.5947
h-g/F-C	0.5247
i-g/F-C	-
C'-t/F'-C'	0.7366
e-C'/F'-C'	0.4751
F'-e/F'-C'	0.5249
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0004
ΔPgF	0.0046

Internal CC (80%/5%)	
398/360	

Color Code (70%/5%)	
410/360	

CCI	
B	-
G	-
R	-

Thermal properties	
CTE(-30,70) [1E-7/°C]	70
CTE(100,300) [1E-7/°C]	85
Tg [°C]	618
At [°C]	660
Ht condct. [W/m·K]	0.735
Sp. heat [kJ/kg·K]	0.500
Ht diffus. [1E-6 m2/sec]	0.336

Chemical properties [class]	
Acid res. (surface)	1
Alkaline detergent res.	1
Climate resistance	1
Water res. (powder)	1
Acid res. (powder)	3

Mechanical properties	
Knoop hardness	531 (5)
Abrasion hardness	104
Young's mod. [GPa]	104.6
Shear mod. [GPa]	40.3
Poisson's ratio	0.298
Stress optical coef. [1E-5 nm/cm/Pa]	1.76

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.00
350	0.00
360	0.04
370	0.31
380	0.58
390	0.73
400	0.82
420	0.900
440	0.936
460	0.956
480	0.969
500	0.978
550	0.990
600	0.991
650	0.991
700	0.993
800	0.995
900	0.996
1000	0.996
1200	0.996
1400	0.998
1600	0.989
1800	0.980
2000	0.965
2200	0.918
2400	0.78

Specific gravity	
4.37	

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.)	2.7	2.8	3.1	3.4	3.7	4.0	4.1	4.2	4.6	5.2	6.4	6.6	8.2	10.0	11.4	
60 to 80 (ref.)	2.6	2.7	3.0	3.3	3.5	3.8	3.9	4.0	4.4	5.0	6.2	6.3	7.9	9.6	10.9	
40 to 60	2.5	2.5	2.8	3.1	3.3	3.6	3.7	3.8	4.2	4.7	5.8	6.0	7.5	9.1	10.3	
20 to 40	2.3	2.4	2.7	2.9	3.2	3.4	3.5	3.6	4.0	4.5	5.6	5.7	7.1	8.6	9.8	
0 to 20	2.2	2.3	2.6	2.8	3.0	3.3	3.4	3.5	3.8	4.3	5.3	5.4	6.7	8.2	9.3	
-20 to 0	2.2	2.3	2.5	2.7	3.0	3.2	3.3	3.4	3.7	4.2	5.1	5.3	6.5	7.8	8.8	
-40 to -20	2.3	2.3	2.6	2.8	3.0	3.2	3.3	3.3	3.7	4.1	5.0	5.1	6.3	7.6	8.5	
-60 to -40 (ref.)	2.4	2.5	2.7	2.9	3.1	3.3	3.4	3.4	3.8	4.2	5.0	5.1	6.2	7.4	8.2	
-70 to -60 (ref.)	2.6	2.7	2.9	3.1	3.3	3.5	3.5	3.6	3.9	4.3	5.1	5.2	6.2	7.3	8.1	

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	1.6	1.7	2.0	2.3	2.6	2.9	3.0	3.0	3.5	4.0	5.3	5.4	7.0	8.8	10.2	
60 to 80	1.4	1.5	1.8	2.0	2.3	2.6	2.7	2.8	3.2	3.7	4.9	5.0	6.6	8.3	9.6	
40 to 60	1.1	1.2	1.4	1.7	1.9	2.2	2.3	2.4	2.8	3.3	4.4	4.6	6.0	7.6	8.8	
20 to 40	0.8	0.8	1.1	1.3	1.6	1.8	1.9	2.0	2.4	2.9	3.9	4.1	5.4	7.0	8.1	
0 to 20	0.4	0.5	0.8	1.0	1.2	1.5	1.5	1.6	2.0	2.4	3.4	3.6	4.8	6.3	7.3	
-20 to 0	0.1	0.2	0.4	0.6	0.9	1.1	1.2	1.2	1.6	2.0	2.9	3.1	4.3	5.6	6.6	
-40 to -20	-0.2	-0.1	0.1	0.3	0.5	0.7	0.8	0.9	1.2	1.6	2.5	2.6	3.7	4.9	5.8	
-60 to -40	-0.5	-0.4	-0.2	-0.1	0.1	0.3	0.4	0.5	0.8	1.2	2.0	2.1	3.1	4.3	5.1	
-70 to -60	-0.7	-0.7	-0.5	-0.3	-0.1	0.1	0.1	0.2	0.5	0.8	1.6	1.7	2.7	3.8	4.5	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.02088736E-01
Q1	7.18066986E+01
P2	2.16492298E-02
Q2	5.59339860E-02
P3	4.12483323E-01
Q3	7.38988329E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.0	6.6
Frac. eq. (ref.)	1.3	10.8

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-LAH71	HOYA	-
CDGM	H-ZLaF71	SCHOTT	N-LASF9

2019-4-1	Transmittance
2015-4-1	Color Code, Similar glass type, Please see the revision history about others.
2011-2-1	Similar glass type