

J-LASF021HS

$n_d = 1.850260$

$n_e = 1.856474$

$v_d = 32.35$

$v_e = 32.11$

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%)	
389/357	

Color Code (70%/5%)	
395/355	

CCI	
B	0.00
G	2.28
R	2.40

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	0.12
370	0.44
380	0.70
390	0.82
400	0.88
420	0.937
440	0.959
460	0.971
480	0.978
500	0.983
550	0.991
600	0.992
650	0.993
700	0.993
800	0.997
900	0.998
1000	0.999
1200	0.999
1400	0.998
1600	0.996
1800	0.984
2000	0.967
2200	0.916
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-LASF9HT

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2019-4-1	Transmittance
2016-4-1	1st edition