

J-LASFH22

 $n_d = 1.848500$
 $n_e = 1.853109$
 $v_d = 43.79$
 $v_e = 43.54$

Glass code (d)
849438
Glass code (e)
853435

Spectral l.	Refractive idx
2.058	1.81010
1.970	1.81160
1.530	1.81871
1.129	1.82567
1.064	1.82704
t	1.82821
s	1.83293
A'	1.836311
r	1.839491
C	1.842718
C'	1.843630
He-Ne	1.844484
D	1.848329
d	1.848500
e	1.853109
F	1.862094
F'	1.863225
g	1.872983
h	1.882178
0.389	1.887856
i	1.898179

Coef. disp. form. (pwr ser.)	
A0	3.32390176E+00
A1	-1.24810607E-02
A2	-1.16698235E-04
A3	3.16622125E-02
A4	6.39837554E-04
A5	8.85550500E-06
A6	1.07749628E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.019376
F'-C'	0.019595
C-t	0.014507
C-A'	0.006407
d-C	0.005782
e-C	0.010391
g-d	0.024483
g-F	0.010889
h-g	0.009195
i-g	0.025196
C'-t	0.015419
e-C'	0.009479
F'-e	0.010116
i-F'	0.034954

Relative partial dispersion	
C-t/F-C	0.7487
C-A'/F-C	0.3307
d-C/F-C	0.2984
e-C/F-C	0.5363
g-d/F-C	1.2636
g-F/F-C	0.5620
h-g/F-C	0.4746
i-g/F-C	1.3004
C'-t/F'-C'	0.7869
e-C'/F'-C'	0.4837
F'-e/F'-C'	0.5163
i-F'/F'-C'	1.7838

Deviation of relative partial disp.	
ΔPdC	0.0014
ΔPgF	-0.0089

Internal CC (80%/5%)	
363/326	
Color Code (70%/5%)	
370/325	
CCI	
B	0.00
G	0.89
R	0.92

Thermal properties	
CTE(-30,70) [1E-7/°C]	63
CTE(100,300) [1E-7/°C]	79
Tg [°C]	690
At [°C]	736
StP [°C]	653
AP [°C]	686
SP [°C]	802
Ht condct. [W/m·K]	0.832
Sp. heat [kJ/kg·K]	0.450
Ht diffus. [1E-6 m2/sec]	0.363

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

Mechanical properties	
Knoop hardness	637 (6)
Abrasion hardness	58
Young's mod. [GPa]	120.4
Shear mod. [GPa]	46.1
Poisson's ratio	0.306
Stress optical coef. [1E-5 nm/cm/Pa]	1.19

Internal trans. (10mm)		
λ [nm]	τ	
280	-	
290	-	
300	-	
310	-	
320	-	
330	0.11	
340	0.37	
350	0.62	
360	0.77	
370	0.86	
380	0.913	
390	0.942	
400	0.958	
420	0.975	
440	0.982	
460	0.988	
480	0.991	
500	0.994	
550	0.998	
600	0.998	
650	0.998	
700	0.998	
800	0.999	
900	0.999	
1000	0.999	
1200	0.999	
1400	0.999	
1600	0.999	
1800	0.993	
2000	0.978	
2200	0.950	
2400	0.82	

Specific gravity	
5.08	

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.)	4.0	4.1	4.4	4.7	4.9	5.2	5.2	5.3	5.6	6.0	6.8	6.9	7.8	8.7	9.4	
60 to 80 (ref.)	3.9	4.0	4.4	4.6	4.8	5.0	5.1	5.2	5.5	5.8	6.6	6.7	7.5	8.5	9.1	
40 to 60	3.8	3.9	4.2	4.4	4.7	4.9	5.0	5.0	5.3	5.7	6.4	6.4	7.3	8.1	8.6	
20 to 40	3.8	3.8	4.1	4.4	4.6	4.8	4.8	4.9	5.2	5.5	6.2	6.2	7.0	7.8	8.3	
0 to 20	3.7	3.8	4.1	4.3	4.5	4.7	4.8	4.8	5.1	5.4	6.0	6.1	6.8	7.5	7.9	
-20 to 0	3.8	3.8	4.1	4.3	4.5	4.7	4.8	4.8	5.1	5.3	5.9	6.0	6.6	7.2	7.6	
-40 to -20	3.9	3.9	4.2	4.4	4.6	4.8	4.8	4.9	5.1	5.4	5.9	6.0	6.5	7.1	7.4	
-60 to -40 (ref.)	4.1	4.1	4.4	4.6	4.8	4.9	5.0	5.0	5.2	5.5	6.0	6.0	6.6	7.1	7.3	
-70 to -60 (ref.)	4.3	4.4	4.6	4.8	5.0	5.1	5.2	5.2	5.4	5.7	6.1	6.2	6.7	7.1	7.4	

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	2.9	3.0	3.3	3.5	3.8	4.0	4.1	4.2	4.5	4.8	5.6	5.7	6.6	7.5	8.2	
60 to 80	2.7	2.8	3.1	3.3	3.6	3.8	3.9	3.9	4.2	4.6	5.3	5.4	6.3	7.1	7.7	
40 to 60	2.4	2.5	2.8	3.1	3.3	3.5	3.6	3.6	3.9	4.2	4.9	5.0	5.8	6.6	7.2	
20 to 40	2.2	2.3	2.6	2.8	3.0	3.2	3.2	3.3	3.6	3.9	4.5	4.6	5.3	6.1	6.6	
0 to 20	1.9	2.0	2.3	2.5	2.7	2.9	2.9	3.0	3.2	3.5	4.1	4.2	4.9	5.6	6.0	
-20 to 0	1.7	1.7	2.0	2.2	2.4	2.6	2.6	2.7	2.9	3.2	3.7	3.8	4.4	5.0	5.4	
-40 to -20	1.4	1.5	1.7	1.9	2.1	2.3	2.3	2.4	2.6	2.8	3.3	3.4	4.0	4.5	4.8	
-60 to -40	1.2	1.2	1.5	1.6	1.8	2.0	2.0	2.1	2.3	2.5	3.0	3.0	3.5	4.0	4.2	
-70 to -60	1.0	1.0	1.3	1.4	1.6	1.7	1.8	1.8	2.0	2.2	2.7	2.7	3.2	3.6	3.8	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.14455188E-01
Q1	8.68161861E+01
P2	3.36439492E-02
Q2	3.01414955E-02
P3	4.02866752E-01
Q3	5.82228484E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.9	5.2
Frac. eq. (ref.)	0.8	4.9

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	-	HOYA	-
CDGM	-	SCHOTT	-

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2016-4-1	1st edition