

J-LASF02

$n_d = 1.799520$

$n_e = 1.804034$

$v_d = 42.09$

$v_e = 41.83$

Glass code (d)
800421
Glass code (e)
804418

Spectral l.	Refractive idx
2.058	1.76084
1.970	1.76245
1.530	1.76995
1.129	1.77706
1.064	1.77843
t	1.77960
s	1.78427
A'	1.787593
r	1.790708
C	1.793865
C'	1.794756
He-Ne	1.795591
D	1.799353
d	1.799520
e	1.804034
F	1.812862
F'	1.813976
g	1.823628
h	1.832793
0.389	1.838492
i	1.848944

Coef. disp. form. (pwr ser.)	
A0	3.15037829E+00
A1	-1.26701101E-02
A2	-1.84342080E-04
A3	3.01788791E-02
A4	4.35495344E-04
A5	5.91055881E-05
A6	-3.81755339E-06
A7	2.51546253E-07
A8	0.00000000E+00

Partial dispersion	
F-C	0.018997
F'-C'	0.019220
C-t	0.014266
C-A'	0.006272
d-C	0.005655
e-C	0.010169
g-d	0.024108
g-F	0.010766
h-g	0.009165
i-g	0.025316
C'-t	0.015157
e-C'	0.009278
F'-e	0.009942
i-F'	0.034968

Relative partial dispersion	
C-t/F-C	0.7510
C-A'/F-C	0.3302
d-C/F-C	0.2977
e-C/F-C	0.5353
g-d/F-C	1.2690
g-F/F-C	0.5667
h-g/F-C	0.4824
i-g/F-C	1.3326
C'-t/F'-C'	0.7886
e-C'/F'-C'	0.4827
F'-e/F'-C'	0.5173
i-F'/F'-C'	1.8194

Deviation of relative partial disp.	
ΔPdC	0.0015
ΔPgF	-0.0070

Internal CC (80%/5%)	
369/333	
Color Code (80%/5%)	
400/335	
CCI	
B	0.00
G	1.02
R	1.07

Thermal properties	
CTE(-30,70) [1E-7/°C]	53
CTE(100,300) [1E-7/°C]	71
Tg [°C]	598
At [°C]	630
StP [°C]	553
AP [°C]	580
SP [°C]	684
Ht condct. [W/m·K]	0.850
Sp. heat [kJ/kg·K]	0.518
Ht diffus. [1E-6 m2/sec]	0.363

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

Mechanical properties	
Knoop hardness	586 (6)
Abrasion hardness	64
Young's mod. [GPa]	109.1
Shear mod. [GPa]	41.6
Poisson's ratio	0.310
Stress optical coef. [1E-5 nm/cm/Pa]	2.23

Internal trans. (10mm)	
λ [nm]	τ
280	-
290	-
300	-
310	-
320	-
330	0.02
340	0.16
350	0.42
360	0.66
370	0.81
380	0.89
390	0.927
400	0.950
420	0.972
440	0.982
460	0.987
480	0.992
500	0.995
550	0.998
600	0.999
650	0.998
700	0.999
800	0.998
900	0.996
1000	0.996
1200	0.997
1400	0.995
1600	0.990
1800	0.981
2000	0.964
2200	0.914
2400	0.72

Specific gravity
4.51

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.)	7.9	8.0	8.2	8.5	8.7	9.0	9.1	9.1	9.5	9.8	10.7	10.8	11.8	12.8	13.4	
60 to 80 (ref.)	7.7	7.8	8.1	8.3	8.5	8.8	8.8	8.9	9.2	9.6	10.4	10.5	11.5	12.5	13.1	
40 to 60	7.5	7.6	7.8	8.1	8.3	8.5	8.6	8.7	9.0	9.3	10.1	10.2	11.1	12.1	12.7	
20 to 40	7.3	7.4	7.6	7.9	8.1	8.3	8.4	8.4	8.7	9.1	9.8	9.9	10.8	11.7	12.3	
0 to 20	7.2	7.2	7.5	7.7	7.9	8.1	8.2	8.2	8.5	8.9	9.6	9.7	10.5	11.4	12.0	
-20 to 0	7.1	7.2	7.4	7.6	7.8	8.0	8.0	8.1	8.4	8.7	9.4	9.5	10.3	11.2	11.7	
-40 to -20	7.1	7.1	7.4	7.5	7.7	7.9	8.0	8.0	8.3	8.6	9.3	9.4	10.2	11.0	11.5	
-60 to -40 (ref.)	7.2	7.2	7.4	7.6	7.8	8.0	8.0	8.1	8.3	8.7	9.3	9.4	10.1	10.9	11.4	
-70 to -60 (ref.)	7.3	7.4	7.6	7.7	7.9	8.1	8.2	8.2	8.5	8.8	9.4	9.5	10.2	10.9	11.4	

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	6.8	6.9	7.2	7.4	7.6	7.9	7.9	8.0	8.3	8.7	9.5	9.6	10.6	11.6	12.3	
60 to 80	6.5	6.6	6.9	7.1	7.3	7.6	7.6	7.7	8.0	8.4	9.2	9.3	10.2	11.2	11.8	
40 to 60	6.2	6.2	6.5	6.7	6.9	7.1	7.2	7.3	7.6	7.9	8.7	8.8	9.7	10.6	11.2	
20 to 40	5.8	5.9	6.1	6.3	6.5	6.7	6.8	6.9	7.2	7.5	8.2	8.3	9.2	10.1	10.7	
0 to 20	5.4	5.5	5.7	5.9	6.1	6.3	6.4	6.4	6.7	7.1	7.8	7.8	8.7	9.5	10.1	
-20 to 0	5.1	5.1	5.3	5.5	5.7	5.9	6.0	6.0	6.3	6.6	7.3	7.4	8.2	9.0	9.5	
-40 to -20	4.7	4.7	5.0	5.1	5.3	5.5	5.6	5.6	5.9	6.2	6.8	6.9	7.7	8.4	8.9	
-60 to -40	4.3	4.4	4.6	4.7	4.9	5.1	5.2	5.2	5.4	5.7	6.3	6.4	7.1	7.9	8.4	
-70 to -60	4.0	4.1	4.3	4.4	4.6	4.8	4.8	4.9	5.1	5.4	6.0	6.1	6.8	7.5	7.9	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.06784810E-01
Q1	7.32229118E+01
P2	2.04998014E-02
Q2	4.06036318E-02
P3	3.97089133E-01
Q3	6.38000144E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	9.5
Frac. eq. (ref.)	0.8	7.7

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-LAH52	HOYA	NBFD12
CDGM	H-LaF54	SCHOTT	-

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq, Similar glass type