

J-LASF016

$n_d = 1.772500$

$n_e = 1.776208$

$v_d = 49.62$

$v_e = 49.38$

Glass code (d)
773496
Glass code (e)
776494

Spectral l.	Refractive idx
2.058	1.73631
1.970	1.73805
1.530	1.74600
1.129	1.75307
1.064	1.75436
t	1.75544
s	1.75961
A'	1.762492
r	1.765146
C	1.767801
C'	1.768547
He-Ne	1.769243
D	1.772362
d	1.772500
e	1.776208
F	1.783370
F'	1.784266
g	1.791961
h	1.799154
0.389	1.803567
i	1.811540

Coef. disp. form. (pwr ser.)	
A0	3.07219058E+00
A1	-1.42144846E-02
A2	-1.67817254E-04
A3	2.44174902E-02
A4	4.25680243E-04
A5	6.77243763E-06
A6	4.02219194E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.015569
F'-C'	0.015719
C-t	0.012365
C-A'	0.005309
d-C	0.004699
e-C	0.008407
g-d	0.019461
g-F	0.008591
h-g	0.007193
i-g	0.019579
C'-t	0.013111
e-C'	0.007661
F'-e	0.008058
i-F'	0.027274

Relative partial dispersion	
C-t/F-C	0.7942
C-A'/F-C	0.3410
d-C/F-C	0.3018
e-C/F-C	0.5400
g-d/F-C	1.2500
g-F/F-C	0.5518
h-g/F-C	0.4620
i-g/F-C	1.2576
C'-t/F'-C'	0.8341
e-C'/F'-C'	0.4874
F'-e/F'-C'	0.5126
i-F'/F'-C'	1.7351

Deviation of relative partial disp.	
ΔPdC	0.0022
ΔPgF	-0.0093

Internal CC (80%/5%)	
348/302	
Color Code (80%/5%)	
375/305	
CCI	
B	0.00
G	0.33
R	0.34

Thermal properties	
CTE(-30,70) [1E-7/°C]	55
CTE(100,300) [1E-7/°C]	71
Tg [°C]	669
At [°C]	697
StP [°C]	623
AP [°C]	651
SP [°C]	747
Ht condct. [W/m·K]	0.826
Sp. heat [kJ/kg·K]	0.494
Ht diffus. [1E-6 m2/sec]	0.393

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

Mechanical properties	
Knoop hardness	715 (7)
Abrasion hardness	57
Young's mod. [GPa]	120.0
Shear mod. [GPa]	46.3
Poisson's ratio	0.295
Stress optical coef. [1E-5 nm/cm/Pa]	1.71

Internal trans. (10mm)	
λ [nm]	τ
280	-
290	-
300	0.03
310	0.15
320	0.37
330	0.57
340	0.72
350	0.82
360	0.89
370	0.934
380	0.960
390	0.973
400	0.982
420	0.990
440	0.993
460	0.995
480	0.996
500	0.998
550	0.998
600	0.998
650	0.998
700	0.999
800	0.999
900	0.999
1000	0.999
1200	0.999
1400	0.998
1600	0.990
1800	0.976
2000	0.951
2200	0.87
2400	0.63

Specific gravity
4.26

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.)	4.2	4.3	4.4	4.6	4.7	4.9	4.9	5.0	5.2	5.5	6.0	6.0	6.6	7.1	7.5	
60 to 80 (ref.)	4.1	4.1	4.3	4.5	4.6	4.8	4.8	4.9	5.1	5.3	5.8	5.9	6.4	7.0	7.4	
40 to 60	4.0	4.0	4.2	4.3	4.5	4.6	4.7	4.7	4.9	5.2	5.7	5.7	6.2	6.8	7.2	
20 to 40	3.9	3.9	4.1	4.2	4.4	4.5	4.6	4.6	4.8	5.1	5.5	5.6	6.1	6.6	7.0	
0 to 20	3.8	3.9	4.0	4.2	4.3	4.5	4.5	4.5	4.7	5.0	5.5	5.5	6.0	6.5	6.9	
-20 to 0	3.8	3.9	4.0	4.2	4.3	4.4	4.5	4.5	4.7	5.0	5.4	5.5	6.0	6.5	6.9	
-40 to -20	3.9	4.0	4.1	4.2	4.4	4.5	4.6	4.6	4.8	5.0	5.5	5.5	6.0	6.5	6.9	
-60 to -40 (ref.)	4.1	4.1	4.3	4.4	4.5	4.7	4.7	4.8	4.9	5.2	5.6	5.7	6.1	6.6	7.0	
-70 to -60 (ref.)	4.3	4.3	4.5	4.6	4.7	4.9	4.9	5.0	5.2	5.4	5.8	5.9	6.3	6.8	7.2	

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	3.1	3.2	3.3	3.5	3.6	3.8	3.8	3.9	4.1	4.3	4.8	4.9	5.4	6.0	6.4	
60 to 80	2.9	3.0	3.1	3.3	3.4	3.6	3.6	3.7	3.9	4.1	4.6	4.7	5.2	5.7	6.1	
40 to 60	2.6	2.7	2.9	3.0	3.1	3.3	3.3	3.4	3.6	3.8	4.3	4.4	4.9	5.4	5.8	
20 to 40	2.4	2.4	2.6	2.7	2.8	3.0	3.0	3.1	3.3	3.5	4.0	4.0	4.5	5.0	5.4	
0 to 20	2.1	2.1	2.3	2.4	2.5	2.7	2.7	2.8	3.0	3.2	3.7	3.7	4.2	4.7	5.1	
-20 to 0	1.8	1.9	2.0	2.1	2.3	2.4	2.4	2.5	2.7	2.9	3.4	3.4	3.9	4.3	4.7	
-40 to -20	1.5	1.6	1.7	1.9	2.0	2.1	2.2	2.2	2.4	2.6	3.0	3.1	3.5	4.0	4.4	
-60 to -40	1.3	1.3	1.5	1.6	1.7	1.8	1.9	1.9	2.1	2.3	2.7	2.8	3.2	3.7	4.0	
-70 to -60	1.1	1.1	1.3	1.4	1.5	1.6	1.6	1.7	1.9	2.1	2.5	2.5	3.0	3.4	3.8	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.20365489E-01
Q1	7.25421180E+01
P2	5.80216137E-02
Q2	2.18135490E-02
P3	3.50533101E-01
Q3	4.51892348E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	2.4
Frac. eq. (ref.)	0.6	2.1

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-LAH66	HOYA	TAF1
CDGM	H-LaF50B	SCHOTT	N-LAF34

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