

J-LASF017

$n_d = 1.795000$

$n_e = 1.799174$

$v_d = 45.31$

$v_e = 45.06$

Glass code (d)
795453
Glass code (e)
799451

Spectral l.	Refractive idx
2.058	1.75641
1.970	1.75817
1.530	1.76627
1.129	1.77364
1.064	1.77501
t	1.77616
s	1.78069
A'	1.783853
r	1.786787
C	1.789742
C'	1.790573
He-Ne	1.791351
D	1.794845
d	1.795000
e	1.799174
F	1.807287
F'	1.808308
g	1.817109
h	1.825410
0.389	1.830542
i	1.839897

Coef. disp. form. (pwr ser.)	
A0	3.14264424E+00
A1	-1.44687256E-02
A2	-1.59589924E-04
A3	2.73342436E-02
A4	6.08068420E-04
A5	1.80054470E-07
A6	1.58176253E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.017545
F'-C'	0.017735
C-t	0.013577
C-A'	0.005889
d-C	0.005258
e-C	0.009432
g-d	0.022109
g-F	0.009822
h-g	0.008301
i-g	0.022788
C'-t	0.014408
e-C'	0.008601
F'-e	0.009134
i-F'	0.031589

Relative partial dispersion	
C-t/F-C	0.7738
C-A'/F-C	0.3357
d-C/F-C	0.2997
e-C/F-C	0.5376
g-d/F-C	1.2601
g-F/F-C	0.5598
h-g/F-C	0.4731
i-g/F-C	1.2988
C'-t/F'-C'	0.8124
e-C'/F'-C'	0.4850
F'-e/F'-C'	0.5150
i-F'/F'-C'	1.7812

Deviation of relative partial disp.	
ΔPdC	0.0020
ΔPgF	-0.0085

Internal CC (80%/5%)	
364/321	
Color Code (80%/5%)	
395/320	
CCI	
B	0.00
G	0.83
R	0.86

Thermal properties	
CTE(-30,70) [1E-7/°C]	64
CTE(100,300) [1E-7/°C]	71
Tg [°C]	660
At [°C]	686
StP [°C]	615
AP [°C]	643
SP [°C]	740
Ht condct. [W/m·K]	0.881
Sp. heat [kJ/kg·K]	0.502
Ht diffus. [1E-6 m2/sec]	0.405

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	707 (7)
Abrasion hardness	61
Young's mod. [GPa]	118.6
Shear mod. [GPa]	45.7
Poisson's ratio	0.297
Stress optical coef. [1E-5 nm/cm/Pa]	1.74

Internal trans. (10mm)	
λ [nm]	τ
280	-
290	-
300	-
310	-
320	0.04
330	0.18
340	0.40
350	0.61
360	0.76
370	0.85
380	0.909
390	0.941
400	0.959
420	0.978
440	0.985
460	0.989
480	0.993
500	0.996
550	0.998
600	0.999
650	0.999
700	0.999
800	0.998
900	0.997
1000	0.997
1200	0.997
1400	0.995
1600	0.990
1800	0.979
2000	0.960
2200	0.89
2400	0.67

Specific gravity
4.34

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.)	4.7	4.7	4.8	5.1	5.3	5.5	5.5	5.6	5.8	6.1	6.7	6.8	7.6	8.4	8.8		
60 to 80 (ref.)	4.5	4.5	4.7	4.9	5.1	5.3	5.3	5.4	5.6	5.9	6.5	6.6	7.3	8.1	8.5		
40 to 60	4.3	4.3	4.5	4.7	4.9	5.0	5.1	5.2	5.4	5.7	6.2	6.3	7.0	7.7	8.2		
20 to 40	4.1	4.1	4.3	4.5	4.7	4.8	4.9	4.9	5.2	5.4	6.0	6.1	6.7	7.4	7.9		
0 to 20	4.0	4.0	4.2	4.3	4.5	4.7	4.7	4.8	5.0	5.2	5.8	5.8	6.5	7.2	7.6		
-20 to 0	3.9	3.9	4.1	4.2	4.4	4.6	4.6	4.7	4.9	5.1	5.6	5.7	6.3	7.0	7.4		
-40 to -20	3.9	3.9	4.1	4.2	4.4	4.5	4.6	4.6	4.8	5.1	5.5	5.6	6.2	6.8	7.2		
-60 to -40 (ref.)	4.0	4.0	4.2	4.3	4.5	4.6	4.7	4.7	4.9	5.1	5.6	5.6	6.2	6.8	7.2		
-70 to -60 (ref.)	4.1	4.2	4.3	4.4	4.6	4.7	4.8	4.8	5.0	5.2	5.7	5.7	6.3	6.9	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	3.6	3.6	3.8	4.0	4.2	4.4	4.4	4.5	4.7	5.0	5.6	5.7	6.4	7.2	7.6		
60 to 80	3.3	3.3	3.5	3.7	3.9	4.1	4.1	4.2	4.4	4.7	5.3	5.3	6.1	6.8	7.3		
40 to 60	2.9	3.0	3.1	3.3	3.5	3.7	3.7	3.8	4.0	4.3	4.8	4.9	5.6	6.3	6.7		
20 to 40	2.6	2.6	2.8	2.9	3.1	3.3	3.3	3.4	3.6	3.9	4.4	4.5	5.1	5.8	6.2		
0 to 20	2.2	2.2	2.4	2.6	2.7	2.9	2.9	3.0	3.2	3.4	3.9	4.0	4.7	5.3	5.7		
-20 to 0	1.9	1.9	2.0	2.2	2.4	2.5	2.6	2.6	2.8	3.0	3.5	3.6	4.2	4.8	5.2		
-40 to -20	1.5	1.5	1.7	1.8	2.0	2.1	2.2	2.2	2.4	2.6	3.1	3.1	3.7	4.3	4.7		
-60 to -40	1.2	1.2	1.3	1.4	1.6	1.7	1.8	1.8	2.0	2.2	2.6	2.7	3.3	3.8	4.1		
-70 to -60	0.9	0.9	1.0	1.2	1.3	1.4	1.5	1.5	1.7	1.9	2.3	2.4	2.9	3.4	3.8		

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.13511476E-01
Q1	6.97040915E+01
P2	2.39810663E-02
Q2	3.50738448E-02
P3	3.92647816E-01
Q3	5.82130127E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.7	5.9
Frac. eq. (ref.)	0.7	8.3

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	-	HOYA	TAF2
CDGM	-	SCHOTT	-

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