

# J-LASF014

$n_d = 1.788000$

$n_e = 1.791961$

$v_d = 47.35$

$v_e = 47.11$

Glass code (d)	788474
Glass code (e)	792471

Spectral l.	Refractive idx
2.058	1.75096
1.970	1.75266
1.530	1.76050
1.129	1.76759
1.064	1.76891
t	1.77001
s	1.77435
A'	1.777378
r	1.780181
C	1.782997
C'	1.783790
He-Ne	1.784530
D	1.787853
d	1.788000
e	1.791961
F	1.799638
F'	1.800601
g	1.808889
h	1.816670
0.389	1.821462
i	1.830154

Coef. disp. form. (pwr ser.)	
A0	3.12119480E+00
A1	-1.37527216E-02
A2	-1.86592469E-04
A3	2.63764849E-02
A4	4.53698660E-04
A5	1.09722341E-05
A6	6.11243363E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.016641
F'-C'	0.016811
C-t	0.012982
C-A'	0.005619
d-C	0.005003
e-C	0.008964
g-d	0.020889
g-F	0.009251
h-g	0.007781
i-g	0.021265
C'-t	0.013775
e-C'	0.008171
F'-e	0.008640
i-F'	0.029553

Relative partial dispersion	
C-t/F-C	0.7801
C-A'/F-C	0.3377
d-C/F-C	0.3006
e-C/F-C	0.5387
g-d/F-C	1.2553
g-F/F-C	0.5559
h-g/F-C	0.4676
i-g/F-C	1.2779
C'-t/F'-C'	0.8194
e-C'/F'-C'	0.4861
F'-e/F'-C'	0.5139
i-F'/F'-C'	1.7580

Deviation of relative partial disp.	
$\Delta PdC$	0.0021
$\Delta PgF$	-0.0090

Internal CC (80%/5%)	
352/311	

Color Code (80%/5%)	
380/310	

CCI	
B	0.00
G	0.50
R	0.52

Thermal properties	
CTE(-30,70) [1E-7/°C]	57
CTE(100,300) [1E-7/°C]	74
Tg [°C]	683
At [°C]	707
Ht condct. [W/m·K]	0.844
Sp. heat [kJ/kg·K]	0.501
Ht diffus. [1E-6 m2/sec]	0.386

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	632 (6)
Abrasion hardness	59
Young's mod. [GPa]	119.6
Shear mod. [GPa]	46.1
Poisson's ratio	0.297
Stress optical coef. [1E-5 nm/cm/Pa]	1.66

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.04
320	0.19
330	0.43
340	0.64
350	0.78
360	0.86
370	0.914
380	0.946
390	0.965
400	0.976
420	0.987
440	0.991
460	0.993
480	0.996
500	0.997
550	0.999
600	0.999
650	0.999
700	0.999
800	0.998
900	0.998
1000	0.998
1200	0.999
1400	0.997
1600	0.992
1800	0.978
2000	0.957
2200	0.89
2400	0.68

Specific gravity	
4.36	

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.)	3.9	4.0	4.1	4.3	4.5	4.6	4.7	4.7	5.0	5.3	5.8	5.9	6.4	6.9	7.3
60 to 80 (ref.)	3.8	3.8	4.1	4.2	4.3	4.5	4.6	4.6	4.8	5.1	5.7	5.7	6.3	6.8	7.1
40 to 60	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.4	4.7	4.9	5.5	5.5	6.1	6.6	6.9
20 to 40	3.5	3.6	3.8	3.9	4.1	4.2	4.3	4.3	4.5	4.8	5.3	5.4	5.9	6.4	6.7
0 to 20	3.4	3.5	3.7	3.8	4.0	4.1	4.2	4.2	4.4	4.7	5.2	5.3	5.8	6.3	6.6
-20 to 0	3.4	3.5	3.7	3.8	3.9	4.1	4.1	4.2	4.4	4.7	5.2	5.2	5.7	6.2	6.5
-40 to -20	3.5	3.5	3.7	3.9	4.0	4.1	4.2	4.2	4.4	4.7	5.2	5.2	5.7	6.2	6.5
-60 to -40 (ref.)	3.6	3.7	3.9	4.0	4.1	4.3	4.3	4.4	4.6	4.8	5.3	5.4	5.8	6.3	6.6
-70 to -60 (ref.)	3.8	3.9	4.1	4.2	4.3	4.5	4.5	4.5	4.8	5.0	5.5	5.5	6.0	6.4	6.7

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	2.8	2.9	3.1	3.2	3.4	3.5	3.6	3.6	3.9	4.1	4.7	4.7	5.3	5.8	6.1
60 to 80	2.6	2.7	2.9	3.0	3.1	3.3	3.3	3.4	3.6	3.9	4.4	4.5	5.0	5.5	5.9
40 to 60	2.3	2.4	2.6	2.7	2.8	3.0	3.0	3.1	3.3	3.6	4.1	4.1	4.7	5.1	5.5
20 to 40	2.0	2.1	2.2	2.4	2.5	2.7	2.7	2.8	3.0	3.2	3.7	3.8	4.3	4.8	5.1
0 to 20	1.7	1.8	1.9	2.1	2.2	2.3	2.4	2.4	2.7	2.9	3.4	3.5	3.9	4.4	4.7
-20 to 0	1.4	1.5	1.6	1.8	1.9	2.0	2.1	2.1	2.3	2.6	3.1	3.1	3.6	4.0	4.3
-40 to -20	1.1	1.2	1.3	1.5	1.6	1.7	1.8	1.8	2.0	2.2	2.7	2.8	3.2	3.7	4.0
-60 to -40	0.8	0.9	1.0	1.1	1.3	1.4	1.4	1.5	1.7	1.9	2.4	2.4	2.9	3.3	3.6
-70 to -60	0.6	0.6	0.8	0.9	1.0	1.2	1.2	1.2	1.4	1.7	2.1	2.2	2.6	3.0	3.3

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.09786177E-01
Q1	6.93481767E+01
P2	2.36064082E-02
Q2	3.22011336E-02
P3	3.90622283E-01
Q3	5.76163595E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.8	9.7
Frac. eq. (ref.)	0.8	10.0

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	S-LAH64	HOYA	TAF4
CDGM	H-LaF10LA	SCHOTT	N-LAF21

2019-4-1	Transmittance
2015-4-1	Color Code, Similar glass type
2009-9-1	1st edition