

# J-LASF08A

$n_d = 1.883000$

$n_e = 1.888158$

$v_d = 40.69$

$v_e = 40.44$

Glass code (d)
883407
Glass code (e)
888404

Spectral l.	Refractive idx
2.058	1.84112
1.970	1.84270
1.530	1.85025
1.129	1.85777
1.064	1.85926
t	1.86054
s	1.86572
A'	1.869450
r	1.872971
C	1.876555
C'	1.877569
He-Ne	1.878520
D	1.882809
d	1.883000
e	1.888158
F	1.898256
F'	1.899531
g	1.910567
h	1.921025
0.389	1.927512
i	1.939369

Coef. disp. form. (pwr ser.)	
A0	3.44086290E+00
A1	-1.38053657E-02
A2	-5.63338044E-05
A3	3.50570730E-02
A4	9.60233781E-04
A5	-7.65969630E-06
A6	2.57013206E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.021701
F'-C'	0.021962
C-t	0.016015
C-A'	0.007105
d-C	0.006445
e-C	0.011603
g-d	0.027567
g-F	0.012311
h-g	0.010458
i-g	0.028802
C'-t	0.017029
e-C'	0.010589
F'-e	0.011373
i-F'	0.039838

Relative partial dispersion	
C-t/F-C	0.7380
C-A'/F-C	0.3274
d-C/F-C	0.2970
e-C/F-C	0.5347
g-d/F-C	1.2703
g-F/F-C	0.5673
h-g/F-C	0.4819
i-g/F-C	1.3272
C'-t/F'-C'	0.7754
e-C'/F'-C'	0.4822
F'-e/F'-C'	0.5178
i-F'/F'-C'	1.8140

Deviation of relative partial disp.	
$\Delta PdC$	0.0014
$\Delta PgF$	-0.0088

Internal CC (80%/5%)	
363/329	

Color Code (70%/5%)	
370/330	

CCI	
B	0.00
G	0.90
R	0.92

Thermal properties	
CTE(-30,70) [1E-7/°C]	62
CTE(100,300) [1E-7/°C]	77
Tg [°C]	700
At [°C]	740
Ht condct. [W/m·K]	0.790
Sp. heat [kJ/kg·K]	0.403
Ht diffus. [1E-6 m2/sec]	0.362

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

Mechanical properties	
Knoop hardness	655 (7)
Abrasion hardness	57
Young's mod. [GPa]	124.9
Shear mod. [GPa]	48.0
Poisson's ratio	0.302
Stress optical coef. [1E-5 nm/cm/Pa]	1.23

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.06
340	0.30
350	0.57
360	0.76
370	0.86
380	0.912
390	0.942
400	0.959
420	0.975
440	0.982
460	0.988
480	0.991
500	0.995
550	0.998
600	0.998
650	0.998
700	0.999
800	0.999
900	0.998
1000	0.999
1200	0.999
1400	0.999
1600	0.998
1800	0.992
2000	0.977
2200	0.948
2400	0.82

Specific gravity	
5.41	

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	4.3	4.5	4.8	5.0	5.1	5.1	5.5	5.9	6.7	6.8	7.8	8.7	9.4
60 to 80 (ref.)	3.7	3.8	4.2	4.4	4.6	4.8	4.9	5.0	5.3	5.7	6.5	6.6	7.5	8.5	9.1
40 to 60	3.6	3.7	4.0	4.2	4.4	4.6	4.7	4.8	5.1	5.4	6.2	6.3	7.2	8.1	8.8
20 to 40	3.4	3.5	3.9	4.1	4.3	4.5	4.5	4.6	4.9	5.2	6.0	6.1	7.0	7.8	8.4
0 to 20	3.3	3.5	3.8	4.0	4.2	4.4	4.4	4.5	4.8	5.1	5.8	5.9	6.7	7.6	8.1
-20 to 0	3.3	3.4	3.7	3.9	4.1	4.3	4.4	4.4	4.7	5.0	5.7	5.8	6.6	7.4	7.9
-40 to -20	3.4	3.5	3.8	3.9	4.1	4.3	4.4	4.4	4.7	5.0	5.6	5.7	6.5	7.3	7.8
-60 to -40 (ref.)	3.5	3.6	3.9	4.1	4.3	4.4	4.5	4.5	4.8	5.1	5.7	5.8	6.5	7.3	7.8
-70 to -60 (ref.)	3.7	3.8	4.1	4.3	4.4	4.6	4.7	4.7	5.0	5.2	5.9	5.9	6.6	7.4	7.8

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	2.7	2.8	3.2	3.4	3.6	3.8	3.9	4.0	4.3	4.7	5.5	5.6	6.5	7.5	8.2
60 to 80	2.5	2.6	2.9	3.1	3.3	3.6	3.6	3.7	4.0	4.4	5.2	5.3	6.2	7.1	7.8
40 to 60	2.2	2.3	2.6	2.8	3.0	3.2	3.3	3.3	3.6	4.0	4.7	4.8	5.7	6.6	7.2
20 to 40	1.8	1.9	2.2	2.4	2.6	2.9	2.9	3.0	3.3	3.6	4.3	4.4	5.3	6.1	6.7
0 to 20	1.5	1.6	1.9	2.1	2.3	2.5	2.6	2.6	2.9	3.2	3.9	4.0	4.8	5.6	6.2
-20 to 0	1.2	1.3	1.6	1.8	1.9	2.1	2.2	2.2	2.5	2.8	3.5	3.6	4.3	5.1	5.6
-40 to -20	0.9	1.0	1.2	1.4	1.6	1.8	1.8	1.9	2.1	2.4	3.0	3.1	3.9	4.6	5.1
-60 to -40	0.6	0.7	0.9	1.1	1.2	1.4	1.5	1.5	1.7	2.0	2.6	2.7	3.4	4.1	4.6
-70 to -60	0.3	0.4	0.7	0.8	1.0	1.1	1.2	1.2	1.5	1.7	2.3	2.4	3.1	3.7	4.2

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.34045707E-01
Q1	9.83260621E+01
P2	4.96463488E-02
Q2	2.94341953E-02
P3	3.98912094E-01
Q3	5.38901754E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.9	8.6
Frac. eq. (ref.)	1.8	6.3

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-LAH58	HOYA	TAFD30
CDGM	-	SCHOTT	N-LASF31A

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2019-4-1	Transmittance
2017-4-1	1st edition