

# J-LASFH2

$n_d = 1.766840$

$n_e = 1.770740$

$v_d = 46.78$

$v_e = 46.53$

Glass code (d)	767468
Glass code (e)	771465

Spectral l.	Refractive idx
2.058	1.72933
1.970	1.73112
1.530	1.73930
1.129	1.74659
1.064	1.74792
t	1.74904
s	1.75337
A'	1.756369
r	1.759137
C	1.761914
C'	1.762694
He-Ne	1.763423
D	1.766695
d	1.766840
e	1.770740
F	1.778307
F'	1.779257
g	1.787448
h	1.795163
0.389	1.799930
i	-

Coef. disp. form. (pwr ser.)	
A0	3.04927657E+00
A1	-1.45487808E-02
A2	-1.68864692E-04
A3	2.51825857E-02
A4	5.22534606E-04
A5	2.91654231E-06
A6	1.27935733E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.016393
F'-C'	0.016563
C-t	0.012877
C-A'	0.005545
d-C	0.004926
e-C	0.008826
g-d	0.020608
g-F	0.009141
h-g	0.007715
i-g	-
C'-t	0.013657
e-C'	0.008046
F'-e	0.008517
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7855
C-A'/F-C	0.3383
d-C/F-C	0.3005
e-C/F-C	0.5384
g-d/F-C	1.2571
g-F/F-C	0.5576
h-g/F-C	0.4706
i-g/F-C	-
C'-t/F'-C'	0.8245
e-C'/F'-C'	0.4858
F'-e/F'-C'	0.5142
i-F'/F'-C'	-

Deviation of relative partial disp.	
$\Delta PdC$	0.0022
$\Delta PgF$	-0.0083

Internal CC (80%/5%)	
367/331	

Color Code (80%/5%)	
390/330	

CCI	
B	0.00
G	0.66
R	0.68

Thermal properties	
CTE(-30,70) [1E-7/°C]	55
CTE(100,300) [1E-7/°C]	64
Tg [°C]	644
At [°C]	674
Ht condct. [W/m·K]	0.890
Sp. heat [kJ/kg·K]	0.529
Ht diffus. [1E-6 m2/sec]	0.410

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

Mechanical properties	
Knoop hardness	666 (7)
Abrasion hardness	64
Young's mod. [GPa]	117.1
Shear mod. [GPa]	45.3
Poisson's ratio	0.293
Stress optical coef. [1E-5 nm/cm/Pa]	1.99

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.04
340	0.21
350	0.47
360	0.70
370	0.83
380	0.906
390	0.944
400	0.964
420	0.983
440	0.989
460	0.993
480	0.996
500	0.997
550	0.998
600	0.999
650	0.999
700	0.999
800	0.999
900	0.998
1000	0.998
1200	0.998
1400	0.996
1600	0.991
1800	0.979
2000	0.957
2200	0.88
2400	0.64

Specific gravity	
4.11	

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	4.8	5.0	5.3	5.4	5.6	5.7	5.7	5.9	6.2	6.8	6.9	7.5	8.1	8.6	
60 to 80 (ref.)	4.6	4.7	5.0	5.1	5.3	5.4	5.5	5.5	5.8	6.0	6.6	6.7	7.3	7.9	8.4	
40 to 60	4.4	4.5	4.8	4.9	5.1	5.2	5.3	5.3	5.6	5.8	6.4	6.4	7.0	7.6	8.1	
20 to 40	4.3	4.4	4.6	4.8	4.9	5.1	5.1	5.2	5.4	5.6	6.2	6.2	6.8	7.4	7.8	
0 to 20	4.2	4.3	4.5	4.7	4.8	5.0	5.0	5.0	5.3	5.5	6.0	6.1	6.6	7.2	7.6	
-20 to 0	4.2	4.2	4.5	4.6	4.7	4.9	4.9	5.0	5.2	5.4	5.9	5.9	6.5	7.0	7.4	
-40 to -20	4.2	4.3	4.5	4.6	4.8	4.9	4.9	5.0	5.2	5.4	5.9	5.9	6.4	6.9	7.3	
-60 to -40 (ref.)	4.3	4.4	4.6	4.7	4.9	5.0	5.0	5.1	5.3	5.5	5.9	6.0	6.5	7.0	7.3	
-70 to -60 (ref.)	4.5	4.6	4.8	4.9	5.0	5.2	5.2	5.2	5.4	5.6	6.1	6.1	6.6	7.1	7.4	

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	3.7	3.8	4.0	4.2	4.3	4.5	4.6	4.6	4.8	5.1	5.7	5.7	6.4	7.0	7.4	
60 to 80	3.4	3.5	3.8	3.9	4.1	4.2	4.3	4.3	4.6	4.8	5.4	5.4	6.0	6.7	7.1	
40 to 60	3.1	3.2	3.4	3.6	3.7	3.9	3.9	4.0	4.2	4.5	5.0	5.0	5.6	6.2	6.6	
20 to 40	2.8	2.9	3.1	3.3	3.4	3.6	3.6	3.6	3.8	4.1	4.6	4.7	5.2	5.8	6.2	
0 to 20	2.5	2.6	2.8	2.9	3.1	3.2	3.2	3.3	3.5	3.7	4.2	4.3	4.8	5.3	5.7	
-20 to 0	2.2	2.2	2.4	2.6	2.7	2.9	2.9	2.9	3.1	3.4	3.8	3.9	4.4	4.9	5.3	
-40 to -20	1.8	1.9	2.1	2.2	2.4	2.5	2.5	2.6	2.8	3.0	3.4	3.5	4.0	4.5	4.8	
-60 to -40	1.5	1.6	1.8	1.9	2.0	2.2	2.2	2.2	2.4	2.6	3.0	3.1	3.5	4.0	4.4	
-70 to -60	1.3	1.4	1.5	1.7	1.8	1.9	1.9	2.0	2.1	2.3	2.7	2.8	3.2	3.7	4.0	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.19707434E-01
Q1	7.01444787E+01
P2	2.24070281E-02
Q2	3.52523493E-02
P3	3.83448965E-01
Q3	5.70886929E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	3.6
Frac. eq. (ref.)	0.6	4.4

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

2019-4-1	Transmittance
2015-4-1	Internal trans, Color Code
2009-9-1	1st edition