

# J-LASFH6

$n_d = 1.806100$

$n_e = 1.811821$

$v_d = 33.34$

$v_e = 33.10$

Glass code (d)	806333
Glass code (e)	811331

Spectral l.	Refractive idx
2.058	1.76229
1.970	1.76385
1.530	1.77139
1.129	1.77905
1.064	1.78059
t	1.78192
s	1.78737
A'	1.791353
r	1.795145
C	1.799034
C'	1.800140
He-Ne	1.801179
D	1.805889
d	1.806100
e	1.811821
F	1.823209
F'	1.824665
g	1.837482
h	1.850008
0.389	1.857993
i	1.873117

Coef. disp. form. (pwr ser.)	
A0	3.15462091E+00
A1	-1.34426083E-02
A2	0.00000000E+00
A3	3.31718297E-02
A4	2.71221217E-03
A5	-5.03803783E-04
A6	1.00437086E-04
A7	-9.19121981E-06
A8	3.75808895E-07

Partial dispersion	
F-C	0.024175
F'-C'	0.024525
C-t	0.017112
C-A'	0.007681
d-C	0.007066
e-C	0.012787
g-d	0.031382
g-F	0.014273
h-g	0.012526
i-g	0.035635
C'-t	0.018218
e-C'	0.011681
F'-e	0.012844
i-F'	0.048452

Relative partial dispersion	
C-t/F-C	0.7078
C-A'/F-C	0.3177
d-C/F-C	0.2923
e-C/F-C	0.5289
g-d/F-C	1.2981
g-F/F-C	0.5904
h-g/F-C	0.5181
i-g/F-C	1.4740
C'-t/F'-C'	0.7428
e-C'/F'-C'	0.4763
F'-e/F'-C'	0.5237
i-F'/F'-C'	1.9756

Deviation of relative partial disp.	
$\Delta PdC$	0.0000
$\Delta PgF$	0.0020

Internal CC (80%/5%)	
387/354	

Color Code (80%/5%)	
420/355	

CCI	
B	0.00
G	2.11
R	2.30

Thermal properties	
CTE(-30,70) [1E-7/°C]	71
CTE(100,300) [1E-7/°C]	87
Tg [°C]	648
At [°C]	693
Ht condct. [W/m·K]	0.899
Sp. heat [kJ/kg·K]	0.562
Ht diffus. [1E-6 m2/sec]	0.425

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

Mechanical properties	
Knoop hardness	545 (5)
Abrasion hardness	102
Young's mod. [GPa]	108.1
Shear mod. [GPa]	42.0
Poisson's ratio	0.288
Stress optical coef. [1E-5 nm/cm/Pa]	1.84

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.00
350	0.01
360	0.13
370	0.42
380	0.68
390	0.83
400	0.900
420	0.947
440	0.965
460	0.974
480	0.981
500	0.986
550	0.993
600	0.996
650	0.998
700	0.998
800	0.998
900	0.998
1000	0.998
1200	0.997
1400	0.994
1600	0.990
1800	0.983
2000	0.970
2200	0.928
2400	0.83

Specific gravity	
3.77	

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.)	2.6	2.8	3.1	3.3	3.6	3.9	3.9	4.0	4.4	4.9	6.0	6.1	7.5	9.2	10.5
60 to 80 (ref.)	2.6	2.7	3.0	3.3	3.5	3.8	3.8	3.9	4.3	4.8	5.8	6.0	7.3	8.9	10.1
40 to 60	2.5	2.6	2.9	3.2	3.4	3.6	3.7	3.8	4.1	4.6	5.6	5.7	7.0	8.5	9.6
20 to 40	2.5	2.6	2.9	3.1	3.3	3.5	3.6	3.7	4.0	4.5	5.4	5.5	6.7	8.1	9.2
0 to 20	2.4	2.6	2.9	3.1	3.3	3.5	3.6	3.6	4.0	4.4	5.3	5.4	6.5	7.8	8.8
-20 to 0	2.5	2.6	2.9	3.1	3.3	3.5	3.6	3.6	3.9	4.3	5.2	5.3	6.4	7.6	8.5
-40 to -20	2.6	2.7	3.0	3.2	3.4	3.6	3.6	3.7	4.0	4.4	5.2	5.3	6.3	7.4	8.3
-60 to -40 (ref.)	2.8	2.9	3.2	3.4	3.6	3.8	3.8	3.9	4.2	4.5	5.3	5.4	6.3	7.3	8.1
-70 to -60 (ref.)	3.1	3.2	3.4	3.6	3.8	4.0	4.0	4.1	4.4	4.7	5.4	5.5	6.4	7.4	8.1

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	1.5	1.7	2.0	2.2	2.5	2.7	2.8	2.9	3.3	3.8	4.8	5.0	6.4	8.0	9.3
60 to 80	1.4	1.5	1.8	2.0	2.3	2.5	2.6	2.7	3.1	3.5	4.6	4.7	6.0	7.6	8.8
40 to 60	1.1	1.3	1.6	1.8	2.0	2.3	2.3	2.4	2.8	3.2	4.2	4.3	5.6	7.1	8.2
20 to 40	0.9	1.0	1.3	1.5	1.7	2.0	2.0	2.1	2.5	2.9	3.8	3.9	5.1	6.5	7.6
0 to 20	0.7	0.8	1.1	1.3	1.5	1.7	1.8	1.8	2.2	2.6	3.4	3.6	4.7	6.0	6.9
-20 to 0	0.5	0.6	0.8	1.0	1.2	1.4	1.5	1.5	1.9	2.2	3.1	3.2	4.2	5.4	6.3
-40 to -20	0.2	0.3	0.6	0.8	0.9	1.1	1.2	1.3	1.5	1.9	2.7	2.8	3.8	4.9	5.7
-60 to -40	0.0	0.1	0.3	0.5	0.7	0.9	0.9	1.0	1.2	1.6	2.3	2.4	3.3	4.3	5.1
-70 to -60	-0.2	-0.1	0.2	0.3	0.5	0.7	0.7	0.8	1.0	1.3	2.0	2.1	3.0	3.9	4.6

Coef. disp. form. (frac. eq.) (ref.)	
P1	9.87706769E-02
Q1	7.10909665E+01
P2	1.90691474E-02
Q2	5.57644489E-02
P3	3.98623922E-01
Q3	7.61374087E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.2	6.9
Frac. eq. (ref.)	2.2	12.1

Prod. Freq. (A to D)	C
----------------------	---

Similar glass type			
OHARA	-	HOYA	NBFD15
CDGM	H-ZLAF56B	SCHOTT	-

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