

J-LASFH15HS

$n_d = 1.950000$

$n_e = 1.957643$

$v_d = 29.37$

$v_e = 29.14$

Glass code (d)	950294
Glass code (e)	958291

Spectral l.	Refractive idx
2.058	1.89577
1.970	1.89747
1.530	1.90583
1.129	1.91488
1.064	1.91680
t	1.91845
s	1.92538
A'	1.930544
r	1.935504
C	1.940626
C'	1.942088
He-Ne	1.943462
D	1.949719
d	1.950000
e	1.957643
F	1.972976
F'	1.974947
g	1.992390
h	2.009607
0.389	2.020683
i	-

Coef. disp. form. (pwr ser.)	
A0	3.64640666E+00
A1	-1.51039558E-02
A2	0.00000000E+00
A3	4.80157444E-02
A4	3.49072452E-03
A5	-5.73639028E-04
A6	1.30249514E-04
A7	-1.29576789E-05
A8	5.92144355E-07

Partial dispersion	
F-C	0.032350
F'-C'	0.032859
C-t	0.022174
C-A'	0.010082
d-C	0.009374
e-C	0.017017
g-d	0.042390
g-F	0.019414
h-g	0.017217
i-g	-
C'-t	0.023636
e-C'	0.015555
F'-e	0.017304
i-F'	-

Relative partial dispersion	
C-t/F-C	0.6854
C-A'/F-C	0.3117
d-C/F-C	0.2898
e-C/F-C	0.5260
g-d/F-C	1.3104
g-F/F-C	0.6001
h-g/F-C	0.5322
i-g/F-C	-
C'-t/F'-C'	0.7193
e-C'/F'-C'	0.4734
F'-e/F'-C'	0.5266
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0007
ΔPgF	0.0050

Internal CC (80%/5%)	
400/361	

Color Code (70%/5%)	
415/360	

CCI	
B	0.00
G	4.13
R	4.39

Thermal properties	
CTE(-30,70) [1E-7/°C]	74
CTE(100,300) [1E-7/°C]	84
Tg [°C]	690
At [°C]	732
Ht condct. [W/m·K]	0.858
Sp. heat [kJ/kg·K]	0.473
Ht diffus. [1E-6 m2/sec]	0.380

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	545 (5)
Abrasion hardness	112
Young's mod. [GPa]	118.1
Shear mod. [GPa]	45.4
Poisson's ratio	0.301
Stress optical coef. [1E-5 nm/cm/Pa]	1.49

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.00
350	0.00
360	0.04
370	0.25
380	0.52
390	0.70
400	0.80
420	0.89
440	0.936
460	0.957
480	0.970
500	0.980
550	0.994
600	0.997
650	0.998
700	0.999
800	0.998
900	0.998
1000	0.998
1200	0.999
1400	0.999
1600	0.996
1800	0.986
2000	0.970
2200	0.930
2400	0.82

Specific gravity	
4.79	

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	2.7	3.0	3.4	3.8	4.2	4.3	4.4	5.0	5.6	7.1	7.3	9.4	11.7	13.3	
60 to 80 (ref.)	2.5	2.5	2.9	3.2	3.6	4.0	4.1	4.2	4.7	5.3	6.8	7.0	9.0	11.2	12.7	
40 to 60	2.3	2.3	2.7	3.0	3.4	3.7	3.8	3.9	4.4	5.0	6.4	6.6	8.5	10.6	12.0	
20 to 40	2.1	2.1	2.5	2.8	3.1	3.5	3.6	3.7	4.1	4.7	6.0	6.2	8.0	10.0	11.3	
0 to 20	2.0	2.0	2.3	2.6	2.9	3.3	3.4	3.5	3.9	4.5	5.7	5.9	7.6	9.5	10.7	
-20 to 0	1.9	1.9	2.2	2.5	2.8	3.1	3.2	3.3	3.7	4.3	5.4	5.6	7.2	9.0	10.2	
-40 to -20	1.9	1.9	2.2	2.5	2.8	3.1	3.2	3.3	3.7	4.1	5.2	5.4	6.9	8.6	9.7	
-60 to -40 (ref.)	2.0	2.0	2.3	2.6	2.9	3.1	3.2	3.3	3.7	4.1	5.2	5.3	6.8	8.3	9.3	
-70 to -60 (ref.)	2.2	2.2	2.5	2.7	3.0	3.3	3.4	3.4	3.8	4.2	5.2	5.4	6.7	8.2	9.2	

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	1.5	1.5	1.9	2.2	2.6	3.0	3.1	3.2	3.7	4.4	5.9	6.1	8.1	10.4	12.0	
60 to 80	1.2	1.2	1.6	1.9	2.3	2.7	2.8	2.9	3.4	4.0	5.4	5.6	7.6	9.8	11.3	
40 to 60	0.8	0.9	1.2	1.5	1.9	2.2	2.3	2.4	2.9	3.5	4.9	5.0	6.9	9.0	10.4	
20 to 40	0.4	0.5	0.8	1.1	1.4	1.8	1.9	2.0	2.4	3.0	4.3	4.5	6.2	8.2	9.5	
0 to 20	0.1	0.1	0.4	0.7	1.0	1.4	1.4	1.5	2.0	2.5	3.7	3.9	5.6	7.4	8.7	
-20 to 0	-0.3	-0.3	0.0	0.3	0.6	0.9	1.0	1.1	1.5	2.0	3.1	3.3	4.9	6.6	7.8	
-40 to -20	-0.7	-0.7	-0.4	-0.1	0.2	0.5	0.5	0.6	1.0	1.5	2.5	2.7	4.2	5.8	6.9	
-60 to -40	-1.0	-1.0	-0.8	-0.5	-0.3	0.0	0.1	0.2	0.5	1.0	2.0	2.1	3.5	5.0	6.0	
-70 to -60	-1.3	-1.3	-1.1	-0.8	-0.6	-0.3	-0.2	-0.2	0.2	0.6	1.5	1.7	3.0	4.4	5.4	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.12808140E-01
Q1	8.53378336E+01
P2	2.63046433E-02
Q2	5.51236515E-02
P3	4.42143641E-01
Q3	7.63030279E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.2	4.0
Frac. eq. (ref.)	1.8	8.5

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

-	-
-	-
2019-4-1	1st edition