

J-LASFH13HS

$n_d = 1.903660$

$n_e = 1.910493$

$v_d = 31.27$

$v_e = 31.04$

Glass code (d)	904313
Glass code (e)	910310

Spectral l.	Refractive idx
2.058	1.85394
1.970	1.85556
1.530	1.86348
1.129	1.87190
1.064	1.87366
t	1.87518
s	1.88150
A'	1.886175
r	1.890648
C	1.895254
C'	1.896567
He-Ne	1.897801
D	1.903409
d	1.903660
e	1.910493
F	1.924149
F'	1.925900
g	1.941336
h	1.956483
0.389	1.966172
i	-

Coef. disp. form. (pwr ser.)	
A0	3.48496859E+00
A1	-1.34692969E-02
A2	-8.98801936E-05
A3	4.53620373E-02
A4	1.10287376E-03
A5	1.48043312E-04
A6	-1.27401645E-05
A7	1.28412516E-06
A8	0.00000000E+00

Partial dispersion	
F-C	0.028895
F'-C'	0.029333
C-t	0.020070
C-A'	0.009079
d-C	0.008406
e-C	0.015239
g-d	0.037676
g-F	0.017187
h-g	0.015147
i-g	-
C'-t	0.021383
e-C'	0.013926
F'-e	0.015407
i-F'	-

Relative partial dispersion	
C-t/F-C	0.6946
C-A'/F-C	0.3142
d-C/F-C	0.2909
e-C/F-C	0.5274
g-d/F-C	1.3039
g-F/F-C	0.5948
h-g/F-C	0.5242
i-g/F-C	-
C'-t/F'-C'	0.7290
e-C'/F'-C'	0.4748
F'-e/F'-C'	0.5252
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0004
ΔPgF	0.0029

Internal CC (80%/5%)	
389/354	

Color Code (70%/5%)	
400/355	

CCI	
B	0.00
G	2.54
R	2.65

Thermal properties	
CTE(-30,70) [1E-7/°C]	67
CTE(100,300) [1E-7/°C]	83
Tg [°C]	654
At [°C]	699
Ht condct. [W/m·K]	0.910
Sp. heat [kJ/kg·K]	0.508
Ht diffus. [1E-6 m2/sec]	0.384

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	649 (6)
Abrasion hardness	105
Young's mod. [GPa]	111.5
Shear mod. [GPa]	42.8
Poisson's ratio	0.301
Stress optical coef. [1E-5 nm/cm/Pa]	1.68

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	0.02
360	0.15
370	0.44
380	0.67
390	0.81
400	0.87
420	0.934
440	0.960
460	0.972
480	0.981
500	0.987
550	0.995
600	0.997
650	0.997
700	0.997
800	0.998
900	0.998
1000	0.998
1200	0.999
1400	0.997
1600	0.995
1800	0.984
2000	0.967
2200	0.924
2400	0.80

Specific gravity	
4.66	

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.)	3.4	3.5	3.7	4.1	4.5	4.9	5.0	5.1	5.7	6.4	7.8	8.0	9.6	11.6	13.2	
60 to 80 (ref.)	3.2	3.3	3.6	3.9	4.2	4.6	4.8	4.9	5.4	6.1	7.4	7.6	9.2	11.1	12.6	
40 to 60	3.0	3.0	3.3	3.6	3.9	4.3	4.4	4.5	5.1	5.7	7.0	7.1	8.6	10.4	11.8	
20 to 40	2.8	2.8	3.0	3.3	3.7	4.0	4.1	4.2	4.7	5.3	6.5	6.7	8.1	9.8	11.1	
0 to 20	2.6	2.6	2.8	3.1	3.4	3.8	3.9	4.0	4.5	5.0	6.1	6.3	7.6	9.2	10.4	
-20 to 0	2.5	2.5	2.7	3.0	3.2	3.6	3.7	3.8	4.2	4.8	5.8	6.0	7.2	8.6	9.8	
-40 to -20	2.4	2.4	2.6	2.9	3.2	3.5	3.6	3.7	4.1	4.6	5.6	5.7	6.8	8.2	9.3	
-60 to -40 (ref.)	2.5	2.5	2.7	2.9	3.2	3.5	3.6	3.6	4.1	4.5	5.5	5.6	6.6	7.8	8.9	
-70 to -60 (ref.)	2.6	2.6	2.8	3.0	3.3	3.6	3.6	3.7	4.1	4.6	5.4	5.6	6.5	7.7	8.7	

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	2.3	2.3	2.6	2.9	3.3	3.7	3.8	4.0	4.5	5.2	6.6	6.7	8.4	10.4	11.9	
60 to 80	2.0	2.0	2.3	2.6	3.0	3.4	3.5	3.6	4.1	4.8	6.1	6.3	7.8	9.7	11.2	
40 to 60	1.6	1.6	1.9	2.1	2.5	2.9	3.0	3.1	3.6	4.2	5.5	5.6	7.1	8.9	10.3	
20 to 40	1.1	1.2	1.4	1.7	2.0	2.4	2.5	2.6	3.1	3.7	4.8	5.0	6.4	8.0	9.4	
0 to 20	0.7	0.8	1.0	1.2	1.5	1.9	2.0	2.1	2.6	3.1	4.2	4.3	5.6	7.2	8.4	
-20 to 0	0.3	0.3	0.5	0.8	1.1	1.4	1.5	1.6	2.0	2.6	3.6	3.7	4.9	6.3	7.5	
-40 to -20	-0.1	-0.1	0.1	0.3	0.6	0.9	1.0	1.1	1.5	2.0	3.0	3.1	4.2	5.5	6.6	
-60 to -40	-0.5	-0.5	-0.3	-0.1	0.1	0.4	0.5	0.6	1.0	1.4	2.3	2.4	3.4	4.6	5.6	
-70 to -60	-0.8	-0.8	-0.7	-0.5	-0.2	0.0	0.1	0.2	0.6	1.0	1.9	2.0	2.9	4.0	4.9	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.33101966E-01
Q1	9.96219670E+01
P2	2.60138903E-02
Q2	5.27668833E-02
P3	4.27058488E-01
Q3	7.32785665E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.7	5.3
Frac. eq. (ref.)	1.6	7.9

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

Similar glass type			
OHARA	S-LAH95	HOYA	TAFD25
CDGM	H-ZLaF75A	SCHOTT	N-LASF46A

2019-4-1	Transmittance
2017-4-1	Similar glass type
2016-4-1	1st edition