

J-LASFH13

 $n_d = 1.903660$
 $n_e = 1.910493$
 $v_d = 31.27$
 $v_e = 31.04$

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%)	
397/356	
Color Code (70%/5%)	
410/355	
CCI	
B	0.00
G	3.67
R	3.76

Thermal properties	
CTE(-30,70) [1E-7/°C]	67
CTE(100,300) [1E-7/°C]	83
Tg [°C]	654
At [°C]	699
StP [°C]	613
AP [°C]	646
SP [°C]	763
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	-	
290	-	
300	-	
310	-	
320	-	
330	-	
340	-	
350	-	
360	0.11	
370	0.35	
380	0.59	
390	0.73	
400	0.82	
420	0.903	
440	0.939	
460	0.958	
480	0.970	
500	0.981	
550	0.993	
600	0.993	
650	0.993	
700	0.995	
800	0.994	
900	0.992	
1000	0.994	
1200	0.997	
1400	0.999	
1600	0.990	
1800	0.983	
2000	0.971	
2200	0.943	
2400	0.85	

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-ZLaF75B	SCHOTT	N-LASF46B

2022-7-1	StP, AP, SP
2020-4-1	Similar glass type
2019-4-1	Transmittance