

J-LAFH3

$n_d = 1.795040$

$n_e = 1.801577$

$v_d = 28.69$

$v_e = 28.46$

Glass code (d)
795287
Glass code (e)
802285

Spectral l.	Refractive idx
2.058	1.74752
1.970	1.74911
1.530	1.75684
1.129	1.76493
1.064	1.76660
t	1.76804
s	1.77401
A'	1.778428
r	1.782664
C	1.787036
C'	1.788284
He-Ne	1.789457
D	1.794800
d	1.795040
e	1.801577
F	1.814745
F'	1.816445
g	1.831551
h	1.846613
0.389	1.856401
i	-

Coef. disp. form. (pwr ser.)	
A0	3.10158920E+00
A1	-1.33474980E-02
A2	0.00000000E+00
A3	3.64605893E-02
A4	3.26400857E-03
A5	-6.24213023E-04
A6	1.40210775E-04
A7	-1.42247779E-05
A8	6.58468818E-07

Partial dispersion	
F-C	0.027709
F'-C'	0.028161
C-t	0.018999
C-A'	0.008608
d-C	0.008004
e-C	0.014541
g-d	0.036511
g-F	0.016806
h-g	0.015062
i-g	-
C'-t	0.020247
e-C'	0.013293
F'-e	0.014868
i-F'	-

Relative partial dispersion	
C-t/F-C	0.6857
C-A'/F-C	0.3107
d-C/F-C	0.2889
e-C/F-C	0.5248
g-d/F-C	1.3177
g-F/F-C	0.6065
h-g/F-C	0.5436
i-g/F-C	-
C'-t/F'-C'	0.7190
e-C'/F'-C'	0.4720
F'-e/F'-C'	0.5280
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0013
ΔPgF	0.0103

Internal CC (80%/5%)	
404/365	
Color Code (80%/5%)	
445/365	
CCI	
B	0.00
G	4.28
R	4.39

Thermal properties	
CTE(-30,70) [1E-7/°C]	68
CTE(100,300) [1E-7/°C]	85
Tg [°C]	629
At [°C]	680
StP [°C]	588
AP [°C]	624
SP [°C]	758
Ht condct. [W/m·K]	1.030
Sp. heat [kJ/kg·K]	0.615
Ht diffus. [1E-6 m2/sec]	0.463

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	555 (6)
Abrasion hardness	149
Young's mod. [GPa]	98.5
Shear mod. [GPa]	38.8
Poisson's ratio	0.268
Stress optical coef. [1E-5 nm/cm/Pa]	2.91

Internal trans. (10mm)	
λ [nm]	τ
280	-
290	-
300	-
310	-
320	-
330	-
340	-
350	-
360	0.01
370	0.12
380	0.36
390	0.60
400	0.76
420	0.900
440	0.942
460	0.962
480	0.973
500	0.981
550	0.992
600	0.994
650	0.993
700	0.995
800	0.996
900	0.998
1000	0.998
1200	0.999
1400	0.997
1600	0.991
1800	0.984
2000	0.977
2200	0.938
2400	0.89

Specific gravity
3.61

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.)	2.8	2.9	3.2	3.5	3.8	4.2	4.3	4.4	4.8	5.4	6.7	6.9	8.6	-	-	
60 to 80 (ref.)	2.7	2.7	3.1	3.4	3.6	4.0	4.1	4.2	4.6	5.2	6.4	6.6	8.3	-	-	
40 to 60	2.5	2.6	2.9	3.1	3.4	3.7	3.8	3.9	4.3	4.9	6.1	6.3	7.8	-	-	
20 to 40	2.3	2.4	2.7	3.0	3.2	3.5	3.6	3.7	4.1	4.6	5.8	5.9	7.4	-	-	
0 to 20	2.2	2.3	2.6	2.8	3.1	3.4	3.5	3.5	3.9	4.4	5.5	5.7	7.1	-	-	
-20 to 0	2.2	2.3	2.5	2.8	3.0	3.3	3.3	3.4	3.8	4.3	5.3	5.4	6.8	-	-	
-40 to -20	2.2	2.3	2.5	2.7	3.0	3.2	3.3	3.4	3.7	4.2	5.1	5.3	6.5	-	-	
-60 to -40 (ref.)	2.3	2.4	2.6	2.8	3.1	3.3	3.4	3.4	3.8	4.2	5.1	5.2	6.4	-	-	
-70 to -60 (ref.)	2.5	2.6	2.8	3.0	3.2	3.4	3.5	3.6	3.9	4.3	5.2	5.3	6.4	-	-	

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	1.7	1.8	2.1	2.4	2.7	3.1	3.1	3.2	3.7	4.3	5.6	5.8	7.5	-	-	
60 to 80	1.5	1.6	1.9	2.2	2.4	2.8	2.9	2.9	3.4	3.9	5.2	5.4	7.0	-	-	
40 to 60	1.1	1.2	1.5	1.8	2.1	2.4	2.5	2.5	3.0	3.5	4.7	4.9	6.4	-	-	
20 to 40	0.8	0.9	1.2	1.4	1.7	2.0	2.1	2.1	2.6	3.1	4.2	4.3	5.8	-	-	
0 to 20	0.5	0.6	0.8	1.1	1.3	1.6	1.7	1.7	2.1	2.6	3.7	3.8	5.2	-	-	
-20 to 0	0.2	0.2	0.5	0.7	0.9	1.2	1.3	1.3	1.7	2.2	3.2	3.3	4.6	-	-	
-40 to -20	-0.2	-0.1	0.1	0.3	0.6	0.8	0.9	1.0	1.3	1.7	2.7	2.8	4.0	-	-	
-60 to -40	-0.5	-0.4	-0.2	0.0	0.2	0.4	0.5	0.6	0.9	1.3	2.2	2.3	3.4	-	-	
-70 to -60	-0.7	-0.7	-0.5	-0.3	-0.1	0.1	0.2	0.3	0.6	0.9	1.8	1.9	3.0	-	-	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.06417888E-01
Q1	7.52701722E+01
P2	2.36574681E-02
Q2	6.01210432E-02
P3	3.87982841E-01
Q3	8.15560229E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.0	7.7
Frac. eq. (ref.)	1.8	10.6

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

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2018-4-1	Prod. Freq.