J-LAFH3HS

n_d = 1.795040 n_e = 1.801577

ν_d = 28.69 ν_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%)
392/363

Color Code (80%/5%)
430/365

CCI	
B	0.00
G	2.54
R	2.71

Thermal properties	
CTE(-30,70) [1E-7/℃]	68
CTE(100,300) [1E-7/℃]	85
Tg [℃]	629
At [℃]	680
Ht cndct. [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	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.00
350	0.00
360	0.02
370	0.24
380	0.58
390	0.79
400	0.88
420	0.938
440	0.960
460	0.971
480	0.979
500	0.984
550	0.992
600	0.995
650	0.996
700	0.997
800	0.998
900	0.999
1000	0.999
1200	0.999
1400	0.993
1600	0.992
1800	0.990
2000	0.977
2200	0.930
2400	0.87

Specific gravity
3.61

Relative Δn/ΔT [1E-6/℃]

Temp. [℃]	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 Δn/ΔT [1E-6/℃]

Temp. [℃]	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

Similar glass type			
OHARA	–	HOYA	–
CDGM	–	SCHOTT	–

2019-4-1	Transmittance
2018-4-1	Prod. Freq.
2017-4-1	1st edition

HIKARI GLASS CO., LTD.