J-LASF05HS

n_d = 1.834810 n_e = 1.839454

ν_d = 42.73 ν_e = 42.48

Glass code (d)
835427
Glass code (e)
839425

Spectral l.	Refractive idx
2.058	1.79536
1.970	1.79697
1.530	1.80451
1.129	1.81173
1.064	1.81314
t	1.81433
s	1.81912
A'	1.822536
r	1.825740
C	1.828989
C'	1.829907
He-Ne	1.830766
D	1.834638
d	1.834810
e	1.839454
F	1.848524
F'	1.849668
g	1.859557
h	1.868920
0.389	1.874725
i	1.885334

Partial dispersion	
F-C	0.019535
F'-C'	0.019761
C-t	0.014655
C-A'	0.006453
d-C	0.005821
e-C	0.010465
g-d	0.024747
g-F	0.011033
h-g	0.009363
i-g	0.025777
C'-t	0.015573
e-C'	0.009547
F'-e	0.010214
i-F'	0.035666

Relative partial dispersion	
C-t／F-C	0.7502
C-A'／F-C	0.3303
d-C／F-C	0.2980
e-C／F-C	0.5357
g-d／F-C	1.2668
g-F／F-C	0.5648
h-g／F-C	0.4793
i-g／F-C	1.3195
C'-t／F'-C'	0.7881
e-C'／F'-C'	0.4831
F'-e／F'-C'	0.5169
i-F'／F'-C'	1.8049

Deviation of relative partial disp.	
ΔPdC	0.0015
ΔPgF	−0.0079

Internal CC (80%/5%)
353/317
Color Code (80%/5%)
395/320

CCI	
B	0.00
G	0.65
R	0.66

Thermal properties	
CTE(−30,70) [1E-7/℃]	55
CTE(100,300) [1E-7/℃]	77
Tg [℃]	674
At [℃]	708
StP [℃]	627
AP [℃]	658
SP [℃]	768
Ht cndct. [W/m･K]	0.907
Sp. heat [kJ/kg･K]	0.501
Ht diffus. [1E-6 m2/sec]	0.378

Chemical properties [class]	
Acid res. (surface)	1
Alkaline detergent res.	1
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	3

Mechanical properties	
Knoop hardness	611 (6)
Abrasion hardness	75
Young's mod. [GPa]	119.8
Shear mod. [GPa]	46.0
Poisson's ratio	0.303
Stress optical coef. [1E-5 nm/cm／Pa]	1.49

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	–
300	–
310	–
320	0.10
330	0.36
340	0.62
350	0.77
360	0.85
370	0.905
380	0.938
390	0.957
400	0.969
420	0.982
440	0.987
460	0.991
480	0.994
500	0.996
550	0.998
600	0.999
650	0.998
700	0.998
800	0.999
900	0.999
1000	0.998
1200	0.997
1400	0.994
1600	0.990
1800	0.986
2000	0.963
2200	0.905
2400	0.73

Specific gravity
4.79

Coef. disp. form. (pwr ser.)	
A0	3.27458352E+00
A1	−1.32752140E-02
A2	−1.35438033E-04
A3	3.11933067E-02
A4	7.11503841E-04
A5	3.51334559E-06
A6	1.88560229E-06
A7	0.00000000E+00
A8	0.00000000E+00

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.)	4.3	4.4	4.6	4.9	5.1	5.3	5.4	5.4	5.7	6.0	6.8	6.9	7.7	8.7	9.3
60 to 80 (ref.)	4.2	4.3	4.6	4.7	4.9	5.2	5.2	5.3	5.6	5.9	6.6	6.7	7.5	8.5	9.1
40 to 60	4.1	4.1	4.4	4.6	4.8	5.0	5.0	5.1	5.4	5.7	6.4	6.5	7.3	8.2	8.8
20 to 40	3.9	4.0	4.3	4.5	4.7	4.8	4.9	5.0	5.2	5.5	6.2	6.3	7.1	7.9	8.5
0 to 20	3.9	4.0	4.2	4.4	4.6	4.8	4.8	4.9	5.1	5.4	6.0	6.1	6.9	7.7	8.3
−20 to 0	3.9	3.9	4.2	4.4	4.5	4.7	4.8	4.8	5.1	5.4	6.0	6.0	6.8	7.6	8.1
−40 to −20	3.9	4.0	4.2	4.4	4.6	4.8	4.8	4.9	5.1	5.4	5.9	6.0	6.7	7.5	8.1
−60 to −40 (ref.)	4.1	4.2	4.4	4.6	4.7	4.9	4.9	5.0	5.2	5.5	6.0	6.1	6.8	7.6	8.1
−70 to −60 (ref.)	4.3	4.4	4.6	4.8	4.9	5.1	5.1	5.2	5.4	5.7	6.2	6.3	7.0	7.7	8.2

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	3.2	3.3	3.5	3.7	3.9	4.2	4.2	4.3	4.6	4.9	5.6	5.7	6.6	7.5	8.1
60 to 80	3.0	3.1	3.3	3.5	3.7	3.9	4.0	4.0	4.3	4.6	5.3	5.4	6.3	7.2	7.8
40 to 60	2.7	2.8	3.0	3.2	3.4	3.6	3.6	3.7	4.0	4.3	4.9	5.0	5.8	6.7	7.3
20 to 40	2.4	2.5	2.7	2.9	3.1	3.3	3.3	3.4	3.6	3.9	4.6	4.6	5.4	6.3	6.8
0 to 20	2.1	2.2	2.4	2.6	2.7	2.9	3.0	3.0	3.3	3.6	4.2	4.3	5.0	5.8	6.4
−20 to 0	1.8	1.9	2.1	2.3	2.4	2.6	2.7	2.7	2.9	3.2	3.8	3.9	4.6	5.4	5.9
−40 to −20	1.5	1.6	1.8	1.9	2.1	2.3	2.3	2.4	2.6	2.9	3.4	3.5	4.2	4.9	5.4
−60 to −40	1.2	1.3	1.5	1.6	1.8	1.9	2.0	2.0	2.2	2.5	3.0	3.1	3.8	4.5	5.0
−70 to −60	1.0	1.0	1.2	1.4	1.5	1.7	1.7	1.8	2.0	2.2	2.8	2.8	3.5	4.2	4.6

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.07685998E-01
Q1	7.57647015E+01
P2	2.51666246E-02
Q2	3.62464825E-02
P3	4.06060216E-01
Q3	6.09115841E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.7	6.0
Frac. eq. (ref.)	0.6	7.2

Prod. Freq. (A to D)	A

Similar glass type			
OHARA	S-LAH55VS	HOYA	TAFD5F、TAFD5G
CDGM	H-ZLaF55D	SCHOTT	N-LASF41

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

HIKARI GLASS CO., LTD.