J-SFH8

n_d = 1.622000 n_e = 1.626770

ν_d = 30.66 ν_e = 30.35

Glass code (d)
622307
Glass code (e)
627304

Spectral l.	Refractive idx
2.058	1.58657
1.970	1.58785
1.530	1.59400
1.129	1.60015
1.064	1.60138
t	1.60244
s	1.60679
A'	1.609981
r	1.613039
C	1.616197
C'	1.617099
He-Ne	1.617948
D	1.621826
d	1.622000
e	1.626770
F	1.636485
F'	1.637752
g	1.649161
h	1.660879
0.389	1.668730
i	–

Partial dispersion	
F-C	0.020288
F'-C'	0.020653
C-t	0.013754
C-A'	0.006216
d-C	0.005803
e-C	0.010573
g-d	0.027161
g-F	0.012676
h-g	0.011718
i-g	–
C'-t	0.014656
e-C'	0.009671
F'-e	0.010982
i-F'	–

Relative partial dispersion	
C-t／F-C	0.6779
C-A'／F-C	0.3064
d-C／F-C	0.2860
e-C／F-C	0.5211
g-d／F-C	1.3388
g-F／F-C	0.6248
h-g／F-C	0.5776
i-g／F-C	–
C'-t／F'-C'	0.7096
e-C'／F'-C'	0.4683
F'-e／F'-C'	0.5317
i-F'／F'-C'	–

Deviation of relative partial disp.	
ΔPdC	-0.0050
ΔPgF	0.0319

Internal CC (80%/5%)
393/368
Color Code (80%/5%)
405/370
CCI

B	0.00
G	2.11
R	2.36

Thermal properties	
CTE(-30,70) [1E-7/℃]	124
CTE(100,300) [1E-7/℃]	163
Tg [℃]	422
At [℃]	478
StP [℃]	387
AP [℃]	420
SP [℃]	528
Ht cndct. [W/m･K]	0.728
Sp. heat [kJ/kg･K]	0.760
Ht diffus. [1E-6 m2/sec]	0.341

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

Mechanical properties	
Knoop hardness	345(3)
Abrasion hardness	600
Young's mod. [GPa]	64.5
Shear mod. [GPa]	25.4
Poisson's ratio	0.270
Stress optical coef. [1E-5 nm/cm／Pa]	2.43

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	–
300	–
310	–
320	–
330	–
340	–
350	–
360	–
370	0.09
380	0.45
390	0.75
400	0.88
420	0.951
440	0.968
460	0.974
480	0.976
500	0.978
550	0.984
600	0.987
650	0.990
700	0.993
800	0.996
900	0.998
1000	0.999
1200	0.999
1400	0.998
1600	0.986
1800	0.932
2000	0.86
2200	0.78
2400	0.70

Specific gravity
2.81

Coef. disp. form. (pwr ser.)	
A0	2.55435034E+00
A1	-1.00436655E-02
A2	0.00000000E+00
A3	2.22501317E-02
A4	2.74804538E-03
A5	-5.99590054E-04
A6	1.36350999E-04
A7	-1.45337260E-05
A8	7.28771109E-07

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.)	-7.1	-7.1	-6.9	-6.6	-6.4	-6.2	-6.1	-6.0	-5.6	-5.2	-4.1	-3.9	-2.2	0.2	2.2
60 to 80 (ref.)	-6.9	-6.9	-6.7	-6.5	-6.3	-6.0	-5.9	-5.9	-5.5	-5.1	-4.0	-3.9	-2.2	0.1	2.0
40 to 60	-6.7	-6.6	-6.4	-6.3	-6.1	-5.8	-5.7	-5.7	-5.3	-4.9	-3.9	-3.8	-2.2	0.0	1.7
20 to 40	-6.4	-6.4	-6.2	-6.0	-5.8	-5.6	-5.5	-5.5	-5.1	-4.7	-3.8	-3.6	-2.1	-0.1	1.5
0 to 20	-6.1	-6.1	-5.9	-5.7	-5.5	-5.3	-5.3	-5.2	-4.9	-4.5	-3.6	-3.5	-2.1	-0.2	1.4
-20 to 0	-5.8	-5.7	-5.6	-5.4	-5.2	-5.0	-4.9	-4.9	-4.6	-4.2	-3.4	-3.2	-1.9	-0.2	1.3
-40 to -20	-5.3	-5.3	-5.1	-5.0	-4.8	-4.6	-4.6	-4.5	-4.2	-3.9	-3.1	-3.0	-1.7	-0.1	1.2
-60 to -40 (ref.)	-4.8	-4.8	-4.6	-4.5	-4.3	-4.1	-4.1	-4.0	-3.8	-3.4	-2.7	-2.6	-1.4	0.1	1.3
-70 to -60 (ref.)	-4.4	-4.3	-4.2	-4.0	-3.9	-3.7	-3.7	-3.6	-3.4	-3.0	-2.3	-2.2	-1.1	0.3	1.4

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	-8.1	-8.0	-7.8	-7.6	-7.4	-7.2	-7.1	-7.0	-6.7	-6.2	-5.1	-4.9	-3.2	-0.9	1.1
60 to 80	-8.0	-8.0	-7.8	-7.6	-7.4	-7.1	-7.0	-7.0	-6.6	-6.2	-5.1	-5.0	-3.3	-1.1	0.8
40 to 60	-7.9	-7.9	-7.7	-7.5	-7.3	-7.1	-7.0	-6.9	-6.6	-6.2	-5.2	-5.0	-3.5	-1.3	0.4
20 to 40	-7.8	-7.8	-7.6	-7.4	-7.2	-7.0	-6.9	-6.9	-6.5	-6.1	-5.2	-5.1	-3.6	-1.6	0.1
0 to 20	-7.7	-7.7	-7.5	-7.3	-7.1	-6.9	-6.9	-6.8	-6.5	-6.1	-5.2	-5.1	-3.7	-1.9	-0.3
-20 to 0	-7.6	-7.6	-7.4	-7.2	-7.1	-6.9	-6.8	-6.8	-6.5	-6.1	-5.3	-5.2	-3.9	-2.1	-0.7
-40 to -20	-7.5	-7.5	-7.3	-7.2	-7.0	-6.8	-6.8	-6.7	-6.4	-6.1	-5.3	-5.2	-4.0	-2.4	-1.1
-60 to -40	-7.4	-7.4	-7.2	-7.1	-6.9	-6.7	-6.7	-6.6	-6.4	-6.1	-5.4	-5.2	-4.1	-2.7	-1.5
-70 to -60	-7.3	-7.3	-7.2	-7.0	-6.9	-6.7	-6.7	-6.6	-6.4	-6.1	-5.4	-5.3	-4.2	-2.9	-1.8

Coef. disp. form. (frac. eq.)(ref.)	
P1	6.67640152E-02
Q1	5.24116669E+01
P2	1.52457750E-02
Q2	7.31296730E-02
P3	3.25603715E-01
Q3	7.94640726E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.0	6.4
Frac. eq. (ref.)	4.2	23.4

Prod. Freq. (A to D)	A

Similar glass type			
OHARA	–	HOYA	–
CDGM	–	SCHOTT	–

–	–
–	–
2022-7-1	1st edition

HIKARI GLASS CO., LTD.