J-BASF7

n_d = 1.701540 n_e = 1.705598

ν_d = 41.02 ν_e = 40.73

Glass code (d)
702410
Glass code (e)
706407

Spectral l.	Refractive idx
2.058	1.66819
1.970	1.66950
1.530	1.67568
1.129	1.68171
1.064	1.68290
t	1.68391
s	1.68799
A'	1.690915
r	1.693675
C	1.696483
C'	1.697278
He-Ne	1.698024
D	1.701390
d	1.701540
e	1.705598
F	1.713586
F'	1.714600
g	1.723434
h	1.731926
0.389	1.737268
i	–

Partial dispersion	
F-C	0.017103
F'-C'	0.017322
C-t	0.012575
C-A'	0.005568
d-C	0.005057
e-C	0.009115
g-d	0.021894
g-F	0.009848
h-g	0.008492
i-g	–
C'-t	0.013370
e-C'	0.008320
F'-e	0.009002
i-F'	–

Relative partial dispersion	
C-t／F-C	0.7353
C-A'／F-C	0.3256
d-C／F-C	0.2957
e-C／F-C	0.5329
g-d／F-C	1.2801
g-F／F-C	0.5758
h-g／F-C	0.4965
i-g／F-C	–
C'-t／F'-C'	0.7719
e-C'／F'-C'	0.4803
F'-e／F'-C'	0.5197
i-F'／F'-C'	–

Deviation of relative partial disp.	
ΔPdC	0.0000
ΔPgF	0.0003

Internal CC (80%/5%)
377/346
Color Code (80%/5%)
395/345
CCI

B	0.00
G	1.12
R	1.19

Thermal properties	
CTE(-30,70) [1E-7/℃]	67
CTE(100,300) [1E-7/℃]	82
Tg [℃]	579
At [℃]	639
StP [℃]	534
AP [℃]	572
SP [℃]	718
Ht cndct. [W/m･K]	0.985
Sp. heat [kJ/kg･K]	0.583
Ht diffus. [1E-6 m2/sec]	0.464

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	531 (5)
Abrasion hardness	115
Young's mod. [GPa]	97.2
Shear mod. [GPa]	38.2
Poisson's ratio	0.272
Stress optical coef. [1E-5 nm/cm／Pa]	2.37

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	–
300	–
310	–
320	–
330	–
340	–
350	0.11
360	0.40
370	0.68
380	0.84
390	0.909
400	0.944
420	0.972
440	0.980
460	0.985
480	0.989
500	0.992
550	0.996
600	0.997
650	0.997
700	0.997
800	0.997
900	0.996
1000	0.996
1200	0.997
1400	0.996
1600	0.991
1800	0.982
2000	0.973
2200	0.938
2400	0.88

Specific gravity
3.63

Coef. disp. form. (pwr ser.)	
A0	2.82115391E+00
A1	-1.00514408E-02
A2	-9.24350756E-05
A3	2.49821665E-02
A4	5.23468025E-04
A5	3.70259835E-05
A6	-2.14786963E-06
A7	2.97698375E-07
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.)	4.5	4.5	4.7	5.0	5.2	5.4	5.4	5.5	5.8	6.1	6.9	7.0	7.9	8.9	9.6
60 to 80 (ref.)	4.4	4.4	4.7	4.8	5.0	5.2	5.3	5.4	5.6	6.0	6.7	6.8	7.7	8.7	9.3
40 to 60	4.2	4.3	4.5	4.7	4.9	5.1	5.1	5.2	5.4	5.8	6.5	6.6	7.4	8.3	8.9
20 to 40	4.1	4.2	4.4	4.5	4.7	4.9	5.0	5.0	5.3	5.6	6.3	6.3	7.2	8.1	8.6
0 to 20	4.1	4.1	4.3	4.5	4.6	4.8	4.9	4.9	5.2	5.5	6.1	6.2	7.0	7.8	8.3
-20 to 0	4.0	4.1	4.3	4.4	4.6	4.8	4.8	4.9	5.1	5.4	6.0	6.1	6.8	7.6	8.1
-40 to -20	4.1	4.1	4.3	4.4	4.6	4.8	4.8	4.9	5.1	5.4	5.9	6.0	6.7	7.5	8.0
-60 to -40 (ref.)	4.2	4.3	4.4	4.6	4.7	4.9	4.9	5.0	5.2	5.5	6.0	6.1	6.8	7.5	7.9
-70 to -60 (ref.)	4.4	4.4	4.6	4.8	4.9	5.1	5.1	5.1	5.3	5.6	6.1	6.2	6.9	7.5	8.0

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	3.4	3.5	3.7	3.9	4.1	4.3	4.4	4.4	4.7	5.1	5.8	5.9	6.8	7.8	8.5
60 to 80	3.2	3.3	3.5	3.7	3.9	4.1	4.1	4.2	4.5	4.8	5.5	5.6	6.5	7.5	8.1
40 to 60	3.0	3.0	3.2	3.4	3.6	3.8	3.8	3.9	4.1	4.5	5.1	5.2	6.1	7.0	7.6
20 to 40	2.7	2.7	2.9	3.1	3.3	3.4	3.5	3.5	3.8	4.1	4.8	4.8	5.7	6.5	7.1
0 to 20	2.4	2.4	2.6	2.8	2.9	3.1	3.2	3.2	3.5	3.7	4.4	4.5	5.2	6.0	6.6
-20 to 0	2.1	2.1	2.3	2.5	2.6	2.8	2.9	2.9	3.1	3.4	4.0	4.1	4.8	5.6	6.1
-40 to -20	1.8	1.9	2.0	2.2	2.3	2.5	2.5	2.6	2.8	3.0	3.6	3.7	4.4	5.1	5.6
-60 to -40	1.5	1.6	1.7	1.9	2.0	2.2	2.2	2.2	2.4	2.7	3.2	3.3	3.9	4.6	5.1
-70 to -60	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.0	2.2	2.4	2.9	3.0	3.6	4.3	4.7

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.10478239E-01
Q1	8.55560494E+01
P2	1.40861354E-02
Q2	5.16621818E-02
P3	3.63660694E-01
Q3	6.86792659E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	7.5
Frac. eq. (ref.)	0.6	8.8

Prod. Freq. (A to D)	C

Similar glass type			
OHARA	S-BAH27	HOYA	BAFD7
CDGM	H-ZBaF20	SCHOTT	-

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

HIKARI GLASS CO., LTD.