J-BASF2

n_d = 1.664460 n_e = 1.668844

ν_d = 35.87 ν_e = 35.60

Glass code (d)
664359
Glass code (e)
669356

Spectral l.	Refractive idx
2.058	1.62927
1.970	1.63062
1.530	1.63707
1.129	1.64339
1.064	1.64464
t	1.64570
s	1.65000
A'	1.653099
r	1.656034
C	1.659032
C'	1.659883
He-Ne	1.660682
D	1.664298
d	1.664460
e	1.668844
F	1.677556
F'	1.678670
g	1.688467
h	1.698048
0.389	1.704168
i	1.715809

Partial dispersion	
F-C	0.018524
F'-C'	0.018787
C-t	0.013329
C-A'	0.005933
d-C	0.005428
e-C	0.009812
g-d	0.024007
g-F	0.010911
h-g	0.009581
i-g	0.027342
C'-t	0.014180
e-C'	0.008961
F'-e	0.009826
i-F'	0.037139

Relative partial dispersion	
C-t／F-C	0.7196
C-A'／F-C	0.3203
d-C／F-C	0.2930
e-C／F-C	0.5297
g-d／F-C	1.2960
g-F／F-C	0.5890
h-g／F-C	0.5172
i-g／F-C	1.4760
C'-t／F'-C'	0.7548
e-C'／F'-C'	0.4770
F'-e／F'-C'	0.5230
i-F'／F'-C'	1.9768

Deviation of relative partial disp.	
ΔPdC	-0.0004
ΔPgF	0.0048

Internal CC (80%/5%)
386/355
Color Code (80%/5%)
400/355
CCI

B	0.00
G	1.52
R	1.49

Thermal properties	
CTE(-30,70) [1E-7/℃]	84
CTE(100,300) [1E-7/℃]	98
Tg [℃]	572
At [℃]	614
StP [℃]	515
AP [℃]	552
SP [℃]	684
Ht cndct. [W/m･K]	1.060
Sp. heat [kJ/kg･K]	0.657
Ht diffus. [1E-6 m2/sec]	0.523

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	503 (5)
Abrasion hardness	175
Young's mod. [GPa]	84.8
Shear mod. [GPa]	33.9
Poisson's ratio	0.252
Stress optical coef. [1E-5 nm/cm／Pa]	2.51

Internal trans. (10mm)	
λ [nm]	τ
280	–
290	–
300	–
310	–
320	–
330	–
340	–
350	0.01
360	0.14
370	0.42
380	0.69
390	0.84
400	0.916
420	0.969
440	0.983
460	0.987
480	0.991
500	0.993
550	0.997
600	0.996
650	0.995
700	0.998
800	0.998
900	0.998
1000	0.998
1200	0.997
1400	0.993
1600	0.988
1800	0.972
2000	0.952
2200	0.89
2400	0.84

Specific gravity
3.08

Coef. disp. form. (pwr ser.)	
A0	2.69527127E+00
A1	-1.09541476E-02
A2	0.00000000E+00
A3	2.34490053E-02
A4	1.90163560E-03
A5	-3.68276327E-04
A6	7.49770823E-05
A7	-7.09432490E-06
A8	3.01058679E-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.)	0.8	0.9	1.1	1.3	1.5	1.7	1.8	1.9	2.2	2.6	3.4	3.5	4.6	5.9	6.8
60 to 80 (ref.)	0.7	0.8	1.0	1.2	1.4	1.6	1.7	1.7	2.0	2.4	3.2	3.3	4.4	5.6	6.5
40 to 60	0.6	0.7	0.9	1.1	1.2	1.4	1.5	1.6	1.8	2.2	3.0	3.1	4.1	5.2	6.1
20 to 40	0.5	0.6	0.8	0.9	1.1	1.3	1.4	1.4	1.7	2.0	2.8	2.9	3.8	4.9	5.7
0 to 20	0.5	0.5	0.7	0.9	1.0	1.2	1.3	1.3	1.6	1.9	2.6	2.7	3.6	4.6	5.3
-20 to 0	0.5	0.5	0.7	0.9	1.0	1.2	1.2	1.3	1.5	1.8	2.5	2.6	3.4	4.4	5.0
-40 to -20	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.3	1.5	1.8	2.4	2.5	3.3	4.2	4.8
-60 to -40 (ref.)	0.7	0.8	0.9	1.0	1.2	1.3	1.4	1.4	1.6	1.9	2.5	2.6	3.3	4.1	4.7
-70 to -60 (ref.)	0.9	0.9	1.1	1.2	1.4	1.5	1.5	1.6	1.8	2.0	2.6	2.7	3.4	4.2	4.7

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	-0.2	-0.1	0.1	0.3	0.5	0.7	0.8	0.8	1.1	1.5	2.3	2.5	3.5	4.8	5.7
60 to 80	-0.4	-0.3	-0.1	0.1	0.3	0.5	0.5	0.6	0.9	1.3	2.1	2.2	3.2	4.4	5.3
40 to 60	-0.6	-0.6	-0.4	-0.2	0.0	0.2	0.2	0.3	0.6	0.9	1.7	1.8	2.8	3.9	4.7
20 to 40	-0.9	-0.8	-0.6	-0.5	-0.3	-0.1	-0.1	0.0	0.2	0.6	1.3	1.4	2.3	3.4	4.2
0 to 20	-1.1	-1.1	-0.9	-0.8	-0.6	-0.4	-0.4	-0.3	-0.1	0.2	0.9	1.0	1.9	2.9	3.6
-20 to 0	-1.4	-1.4	-1.2	-1.0	-0.9	-0.7	-0.7	-0.6	-0.4	-0.1	0.5	0.6	1.4	2.4	3.0
-40 to -20	-1.7	-1.6	-1.5	-1.3	-1.2	-1.0	-1.0	-0.9	-0.7	-0.5	0.1	0.2	1.0	1.8	2.5
-60 to -40	-1.9	-1.9	-1.7	-1.6	-1.5	-1.3	-1.3	-1.3	-1.1	-0.8	-0.3	-0.2	0.5	1.3	1.9
-70 to -60	-2.1	-2.1	-1.9	-1.8	-1.7	-1.6	-1.5	-1.5	-1.3	-1.1	-0.5	-0.5	0.2	0.9	1.5

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.00362810E-01
Q1	7.32458985E+01
P2	1.42101815E-02
Q2	5.95561472E-02
P3	3.46573289E-01
Q3	7.65094042E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.8	6.2
Frac. eq. (ref.)	2.3	10.7

Prod. Freq. (A to D)	C

Similar glass type			
OHARA	-	HOYA	-
CDGM	-	SCHOTT	N-BASF2

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