

J-KZFH7

$n_d = 1.732110$

$n_e = 1.735883$

$v_d = 46.18$

$v_e = 45.93$

Glass code (d)	732462
Glass code (e)	736459

Spectral l.	Refractive idx
2.058	1.69859
1.970	1.70002
1.530	1.70671
1.129	1.71299
1.064	1.71419
t	1.71520
s	1.71922
A'	1.722051
r	1.724693
C	1.727358
C'	1.728109
He-Ne	1.728812
D	1.731970
d	1.732110
e	1.735883
F	1.743210
F'	1.744130
g	1.752052
h	1.759489
0.389	1.764068
i	1.772368

Coef. disp. form. (pwr ser.)	
A0	2.92982429E+00
A1	-1.15064058E-02
A2	-9.01320677E-05
A3	2.42192502E-02
A4	4.84339860E-04
A5	3.92109984E-06
A6	7.18628425E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.015852
F'-C'	0.016021
C-t	0.012156
C-A'	0.005307
d-C	0.004752
e-C	0.008525
g-d	0.019942
g-F	0.008842
h-g	0.007437
i-g	0.020316
C'-t	0.012907
e-C'	0.007774
F'-e	0.008247
i-F'	0.028238

Relative partial dispersion	
C-t/F-C	0.7668
C-A'/F-C	0.3348
d-C/F-C	0.2998
e-C/F-C	0.5378
g-d/F-C	1.2580
g-F/F-C	0.5578
h-g/F-C	0.4692
i-g/F-C	1.2816
C'-t/F'-C'	0.8056
e-C'/F'-C'	0.4852
F'-e/F'-C'	0.5148
i-F'/F'-C'	1.7626

Deviation of relative partial disp.	
ΔPdC	0.0017
ΔPgF	-0.0091

Internal CC (80%/5%)	
335/290	

Color Code (80%/5%)	
365/290	

CCI	
B	0.00
G	0.39
R	0.39

Thermal properties	
CTE(-30,70) [1E-7/°C]	65
CTE(100,300) [1E-7/°C]	89
Tg [°C]	508
At [°C]	563
Ht condct. [W/m·K]	0.868
Sp. heat [kJ/kg·K]	0.575
Ht diffus. [1E-6 m2/sec]	0.371

Chemical properties [class]	
Acid res. (surface)	4
Alkaline detergent res.	2
Climate resistance	1
Water res. (powder)	1
Acid res. (powder)	3

Mechanical properties	
Knoop hardness	580 (6)
Abrasion hardness	96
Young's mod. [GPa]	107.3
Shear mod. [GPa]	41.6
Poisson's ratio	0.290
Stress optical coef. [1E-5 nm/cm/Pa]	2.52

Internal trans. (10mm)	
λ [nm]	τ
280	0.04
290	0.07
300	0.24
310	0.46
320	0.64
330	0.76
340	0.85
350	0.902
360	0.938
370	0.960
380	0.972
390	0.979
400	0.983
420	0.987
440	0.990
460	0.993
480	0.995
500	0.995
550	0.998
600	0.998
650	0.998
700	0.998
800	0.999
900	0.998
1000	0.998
1200	0.997
1400	0.995
1600	0.995
1800	0.987
2000	0.972
2200	0.944
2400	0.82

Specific gravity	
4.07	

Relative $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90 (ref.)	5.3	5.4	5.6	5.9	6.1	6.3	6.4	6.4	6.7	7.0	7.7	7.7	8.5	9.3	9.8	
60 to 80 (ref.)	5.2	5.3	5.6	5.8	6.0	6.2	6.2	6.3	6.5	6.8	7.5	7.6	8.3	9.1	9.6	
40 to 60	5.1	5.2	5.4	5.6	5.8	6.0	6.0	6.1	6.4	6.7	7.3	7.3	8.1	8.8	9.3	
20 to 40	5.0	5.0	5.3	5.5	5.7	5.9	5.9	6.0	6.2	6.5	7.1	7.2	7.8	8.5	9.0	
0 to 20	4.9	5.0	5.2	5.4	5.6	5.8	5.8	5.9	6.1	6.4	6.9	7.0	7.7	8.3	8.8	
-20 to 0	4.9	5.0	5.2	5.4	5.5	5.7	5.8	5.8	6.0	6.3	6.8	6.9	7.5	8.2	8.6	
-40 to -20	5.0	5.0	5.2	5.4	5.6	5.8	5.8	5.8	6.1	6.3	6.8	6.9	7.5	8.1	8.5	
-60 to -40 (ref.)	5.1	5.2	5.4	5.6	5.7	5.9	5.9	6.0	6.2	6.4	6.9	7.0	7.5	8.1	8.5	
-70 to -60 (ref.)	5.3	5.4	5.6	5.7	5.9	6.1	6.1	6.1	6.3	6.6	7.1	7.1	7.7	8.2	8.6	

Absolute $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90	4.3	4.3	4.6	4.8	5.0	5.2	5.3	5.3	5.6	5.9	6.6	6.6	7.4	8.2	8.7	
60 to 80	4.1	4.1	4.4	4.6	4.8	5.0	5.0	5.1	5.4	5.7	6.3	6.4	7.1	7.9	8.4	
40 to 60	3.8	3.9	4.1	4.3	4.5	4.7	4.7	4.8	5.0	5.3	5.9	6.0	6.7	7.4	7.9	
20 to 40	3.5	3.6	3.8	4.0	4.2	4.4	4.4	4.5	4.7	5.0	5.5	5.6	6.3	7.0	7.4	
0 to 20	3.2	3.3	3.5	3.7	3.9	4.0	4.1	4.1	4.4	4.6	5.2	5.2	5.9	6.5	7.0	
-20 to 0	2.9	3.0	3.2	3.4	3.6	3.7	3.8	3.8	4.0	4.3	4.8	4.9	5.5	6.1	6.5	
-40 to -20	2.7	2.7	2.9	3.1	3.3	3.4	3.5	3.5	3.7	4.0	4.4	4.5	5.1	5.7	6.1	
-60 to -40	2.4	2.4	2.6	2.8	2.9	3.1	3.1	3.2	3.4	3.6	4.1	4.1	4.7	5.2	5.6	
-70 to -60	2.2	2.2	2.4	2.6	2.7	2.9	2.9	2.9	3.1	3.4	3.8	3.9	4.4	4.9	5.3	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.34679629E-01
Q1	9.52571480E+01
P2	5.85653677E-02
Q2	2.35306968E-02
P3	3.32892041E-01
Q3	4.88022239E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	7.8
Frac. eq. (ref.)	0.7	6.8

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	-	HOYA	-
CDGM	-	SCHOTT	-

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2019-4-1	Transmittance
2018-9-1	1st edition