

J-KZFH10

 $n_d = 1.788800$
 $n_e = 1.795356$
 $v_d = 28.42$
 $v_e = 28.21$

Glass code (d)
789284
Glass code (e)
795282

Spectral l.	Refractive idx
2.058	1.74014
1.970	1.74182
1.530	1.74993
1.129	1.75831
1.064	1.76003
t	1.76151
s	1.76760
A'	1.772078
r	1.776354
C	1.780756
C'	1.782011
He-Ne	1.783191
D	1.788559
d	1.788800
e	1.795356
F	1.808514
F'	1.810206
g	1.825186
h	1.839981
0.389	1.849498
i	1.867685

Coef. disp. form. (pwr ser.)	
A0	3.07658400E+00
A1	-1.33765417E-02
A2	-7.86716819E-05
A3	4.02814050E-02
A4	8.62482819E-04
A5	2.06057925E-04
A6	-2.00214781E-05
A7	1.63512379E-06
A8	0.00000000E+00

Partial dispersion	
F-C	0.027758
F'-C'	0.028195
C-t	0.019247
C-A'	0.008678
d-C	0.008044
e-C	0.014600
g-d	0.036386
g-F	0.016672
h-g	0.014795
i-g	0.042499
C'-t	0.020502
e-C'	0.013345
F'-e	0.014850
i-F'	0.057479

Relative partial dispersion	
C-t/F-C	0.6934
C-A'/F-C	0.3126
d-C/F-C	0.2898
e-C/F-C	0.5260
g-d/F-C	1.3108
g-F/F-C	0.6006
h-g/F-C	0.5330
i-g/F-C	1.5311
C'-t/F'-C'	0.7272
e-C'/F'-C'	0.4733
F'-e/F'-C'	0.5267
i-F'/F'-C'	2.0386

Deviation of relative partial disp.	
ΔPdC	-0.0002
ΔPgF	0.0039

Internal CC (80%/5%)	
366/336	
Color Code (80%/5%)	
415/335	
CCI	
B	0.00
G	1.31
R	1.52

Thermal properties	
CTE(-30,70) [1E-7/°C]	70
CTE(100,300) [1E-7/°C]	94
Tg [°C]	562
At [°C]	601
StP [°C]	511
AP [°C]	546
SP [°C]	679
Ht condct. [W/m·K]	1.040
Sp. heat [kJ/kg·K]	0.702
Ht diffus. [1E-6 m2/sec]	0.445

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	600 (6)
Abrasion hardness	126
Young's mod. [GPa]	102.7
Shear mod. [GPa]	41.3
Poisson's ratio	0.245
Stress optical coef. [1E-5 nm/cm/Pa]	3.11

Internal trans. (10mm)	
λ [nm]	τ
280	-
290	-
300	-
310	-
320	-
330	-
340	0.14
350	0.51
360	0.74
370	0.82
380	0.87
390	0.907
400	0.931
420	0.959
440	0.969
460	0.975
480	0.980
500	0.984
550	0.991
600	0.995
650	0.996
700	0.997
800	0.999
900	0.999
1000	0.999
1200	0.999
1400	0.996
1600	0.994
1800	0.983
2000	0.977
2200	0.943
2400	0.933

Specific gravity
3.33

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.)	3.1	3.1	3.4	3.7	4.0	4.3	4.4	4.5	4.9	5.5	6.7	6.9	8.6	10.5	11.9	
60 to 80 (ref.)	2.9	3.0	3.3	3.5	3.8	4.1	4.2	4.3	4.7	5.2	6.5	6.6	8.2	10.1	11.4	
40 to 60	2.7	2.8	3.0	3.3	3.6	3.8	3.9	4.0	4.4	4.9	6.1	6.2	7.8	9.5	10.8	
20 to 40	2.5	2.6	2.9	3.1	3.4	3.6	3.7	3.8	4.2	4.7	5.8	5.9	7.3	9.0	10.2	
0 to 20	2.4	2.4	2.7	2.9	3.2	3.5	3.5	3.6	4.0	4.4	5.5	5.6	6.9	8.5	9.6	
-20 to 0	2.3	2.4	2.6	2.8	3.1	3.3	3.4	3.5	3.8	4.3	5.2	5.4	6.6	8.1	9.1	
-40 to -20	2.3	2.3	2.6	2.8	3.0	3.3	3.4	3.4	3.8	4.2	5.1	5.2	6.4	7.7	8.7	
-60 to -40 (ref.)	2.4	2.4	2.7	2.9	3.1	3.3	3.4	3.5	3.8	4.2	5.0	5.1	6.2	7.5	8.4	
-70 to -60 (ref.)	2.5	2.6	2.8	3.0	3.2	3.5	3.5	3.6	3.9	4.3	5.1	5.2	6.2	7.4	8.2	

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	2.0	2.1	2.3	2.6	2.9	3.2	3.3	3.4	3.8	4.4	5.6	5.8	7.4	9.3	10.7	
60 to 80	1.7	1.8	2.1	2.3	2.6	2.9	3.0	3.1	3.5	4.0	5.2	5.4	7.0	8.8	10.1	
40 to 60	1.4	1.4	1.7	1.9	2.2	2.5	2.6	2.7	3.1	3.6	4.7	4.8	6.3	8.1	9.3	
20 to 40	1.0	1.1	1.3	1.6	1.8	2.1	2.2	2.2	2.6	3.1	4.2	4.3	5.7	7.3	8.5	
0 to 20	0.6	0.7	1.0	1.2	1.4	1.7	1.8	1.8	2.2	2.7	3.6	3.8	5.1	6.6	7.7	
-20 to 0	0.3	0.3	0.6	0.8	1.0	1.3	1.4	1.4	1.8	2.2	3.1	3.3	4.5	5.9	6.9	
-40 to -20	-0.1	0.0	0.2	0.4	0.6	0.9	1.0	1.0	1.3	1.7	2.6	2.7	3.9	5.2	6.1	
-60 to -40	-0.4	-0.4	-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	
-70 to -60	-0.7	-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	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.27426259E-01
Q1	8.33940499E+01
P2	2.97710686E-02
Q2	5.39052175E-02
P3	3.79284474E-01
Q3	8.02008706E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.1	6.2
Frac. eq. (ref.)	3.9	16.0

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-NBH58	HOYA	NBFD29
CDGM	-	SCHOTT	-

-	-
-	-
2022-7-1	1st edition