

J-FK01A

$n_d = 1.497000$

$n_e = 1.498453$

$v_d = 81.65$

$v_e = 81.25$

Glass code (d)	497817
Glass code (e)	498813

Spectral l.	Refractive idx
2.058	1.48179
1.970	1.48255
1.530	1.48604
1.129	1.48909
1.064	1.48964
t	1.49009
s	1.49183
A'	1.493004
r	1.494075
C	1.495139
C'	1.495435
He-Ne	1.495712
D	1.496946
d	1.497000
e	1.498453
F	1.501226
F'	1.501570
g	1.504496
h	1.507188
0.389	1.508820
i	1.511729

Coef. disp. form. (pwr ser.)	
A0	2.21785004E+00
A1	-5.52619544E-03
A2	-4.04219098E-05
A3	8.39820345E-03
A4	8.80190880E-05
A5	1.15723877E-07
A6	5.38178618E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.006087
F'-C'	0.006135
C-t	0.005046
C-A'	0.002135
d-C	0.001861
e-C	0.003314
g-d	0.007496
g-F	0.003270
h-g	0.002692
i-g	0.007233
C'-t	0.005342
e-C'	0.003018
F'-e	0.003117
i-F'	0.010159

Relative partial dispersion	
C-t/F-C	0.8290
C-A'/F-C	0.3507
d-C/F-C	0.3057
e-C/F-C	0.5444
g-d/F-C	1.2315
g-F/F-C	0.5372
h-g/F-C	0.4423
i-g/F-C	1.1883
C'-t/F'-C'	0.8707
e-C'/F'-C'	0.4919
F'-e/F'-C'	0.5081
i-F'/F'-C'	1.6559

Deviation of relative partial disp.	
ΔPdC	-0.0083
ΔPgF	0.0298

Internal CC (80%/5%)	
330/282	

Color Code (80%/5%)	
335/285	

CCI	
B	0.00
G	0.11
R	0.04

Thermal properties	
CTE(-30,70) [1E-7/°C]	120
CTE(100,300) [1E-7/°C]	146
Tg [°C]	459
At [°C]	490
Ht condct. [W/m·K]	0.770
Sp. heat [kJ/kg·K]	0.658
Ht diffus. [1E-6 m2/sec]	0.322

Chemical properties [class]	
Acid res. (surface)	5
Alkaline detergent res.	4
Climate resistance	1
Water res. (powder)	1
Acid res. (powder)	3

Mechanical properties	
Knoop hardness	344 (3)
Abrasion hardness	447
Young's mod. [GPa]	71.6
Shear mod. [GPa]	27.6
Poisson's ratio	0.297
Stress optical coef. [1E-5 nm/cm/Pa]	0.81

Internal trans. (10mm)	
λ [nm]	τ
280	0.04
290	0.11
300	0.24
310	0.44
320	0.65
330	0.80
340	0.902
350	0.953
360	0.978
370	0.990
380	0.995
390	0.997
400	0.997
420	0.996
440	0.996
460	0.997
480	0.998
500	0.999
550	0.999
600	0.998
650	0.997
700	0.999
800	0.999
900	0.999
1000	0.999
1200	0.999
1400	0.999
1600	0.998
1800	0.999
2000	0.999
2200	0.999
2400	0.998

Specific gravity	
3.65	

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.)	-6.4	-6.4	-6.4	-6.3	-6.2	-6.2	-6.2	-6.1	-6.1	-6.0	-5.8	-5.8	-5.7	-5.5	-5.4	
60 to 80 (ref.)	-6.3	-6.3	-6.2	-6.1	-6.1	-6.0	-6.0	-6.0	-5.9	-5.9	-5.7	-5.7	-5.5	-5.3	-5.3	
40 to 60	-6.1	-6.0	-5.9	-5.9	-5.8	-5.8	-5.8	-5.8	-5.7	-5.6	-5.5	-5.5	-5.3	-5.1	-5.0	
20 to 40	-5.8	-5.8	-5.7	-5.6	-5.6	-5.6	-5.5	-5.5	-5.5	-5.4	-5.3	-5.2	-5.1	-4.9	-4.8	
0 to 20	-5.5	-5.5	-5.4	-5.4	-5.3	-5.3	-5.3	-5.2	-5.2	-5.1	-5.0	-5.0	-4.8	-4.6	-4.5	
-20 to 0	-5.2	-5.1	-5.1	-5.0	-5.0	-4.9	-4.9	-4.9	-4.9	-4.8	-4.7	-4.6	-4.5	-4.3	-4.2	
-40 to -20	-4.8	-4.8	-4.7	-4.6	-4.6	-4.6	-4.5	-4.5	-4.5	-4.4	-4.3	-4.3	-4.1	-3.9	-3.9	
-60 to -40 (ref.)	-4.3	-4.3	-4.2	-4.2	-4.1	-4.1	-4.1	-4.1	-4.0	-3.9	-3.8	-3.8	-3.6	-3.5	-3.4	
-70 to -60 (ref.)	-3.9	-3.8	-3.8	-3.7	-3.7	-3.7	-3.6	-3.6	-3.6	-3.5	-3.4	-3.4	-3.2	-3.1	-3.0	

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	-7.4	-7.3	-7.3	-7.2	-7.1	-7.1	-7.1	-7.1	-7.0	-6.9	-6.8	-6.8	-6.6	-6.4	-6.4	
60 to 80	-7.3	-7.3	-7.2	-7.1	-7.1	-7.0	-7.0	-7.0	-6.9	-6.9	-6.7	-6.7	-6.6	-6.4	-6.3	
40 to 60	-7.2	-7.2	-7.1	-7.0	-7.0	-6.9	-6.9	-6.9	-6.9	-6.8	-6.7	-6.6	-6.6	-6.4	-6.2	
20 to 40	-7.1	-7.1	-7.0	-6.9	-6.9	-6.9	-6.8	-6.8	-6.8	-6.7	-6.6	-6.6	-6.4	-6.2	-6.2	
0 to 20	-7.0	-7.0	-6.9	-6.8	-6.8	-6.8	-6.7	-6.7	-6.7	-6.6	-6.5	-6.5	-6.3	-6.2	-6.1	
-20 to 0	-6.9	-6.9	-6.8	-6.7	-6.7	-6.7	-6.7	-6.6	-6.6	-6.5	-6.4	-6.4	-6.2	-6.1	-6.0	
-40 to -20	-6.8	-6.8	-6.7	-6.7	-6.6	-6.6	-6.6	-6.6	-6.5	-6.5	-6.3	-6.3	-6.2	-6.0	-5.9	
-60 to -40	-6.7	-6.7	-6.6	-6.6	-6.5	-6.5	-6.5	-6.5	-6.4	-6.4	-6.3	-6.2	-6.1	-6.0	-5.9	
-70 to -60	-6.6	-6.6	-6.5	-6.5	-6.5	-6.4	-6.4	-6.4	-6.4	-6.3	-6.2	-6.2	-6.0	-5.9	-5.8	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.06331633E-01
Q1	1.14369714E+02
P2	8.31447076E-02
Q2	1.07948356E-02
P3	2.05591597E-01
Q3	2.53871701E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	7.2
Frac. eq. (ref.)	0.4	7.0

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-FPL51	HOYA	FCD1
CDGM	H-FK61	SCHOTT	N-PK52A

2019-4-1	Transmittance
2017-4-1	1st edition