

J-LAK011

 $n_d = 1.741000$
 $n_e = 1.744347$
 $v_d = 52.77$
 $v_e = 52.53$

Glass code (d)
741528
Glass code (e)
744525

Spectral l.	Refractive idx
2.058	1.70674
1.970	1.70848
1.530	1.71632
1.129	1.72312
1.064	1.72434
t	1.72536
s	1.72924
A'	1.731896
r	1.734323
C	1.736741
C'	1.737418
He-Ne	1.738050
D	1.740875
d	1.741000
e	1.744347
F	1.750784
F'	1.751588
g	1.758468
h	1.764870
0.389	1.768784
i	1.775829

Coef. disp. form. (pwr ser.)	
A0	2.96970289E+00
A1	-1.38160772E-02
A2	-1.88539623E-04
A3	2.18448120E-02
A4	3.20709012E-04
A5	8.12772786E-06
A6	7.94854532E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.014043
F'-C'	0.014170
C-t	0.011384
C-A'	0.004845
d-C	0.004259
e-C	0.007606
g-d	0.017468
g-F	0.007684
h-g	0.006402
i-g	0.017361
C'-t	0.012061
e-C'	0.006929
F'-e	0.007241
i-F'	0.024241

Relative partial dispersion	
C-t/F-C	0.8107
C-A'/F-C	0.3450
d-C/F-C	0.3033
e-C/F-C	0.5416
g-d/F-C	1.2439
g-F/F-C	0.5472
h-g/F-C	0.4559
i-g/F-C	1.2363
C'-t/F'-C'	0.8512
e-C'/F'-C'	0.4890
F'-e/F'-C'	0.5110
i-F'/F'-C'	1.7107

Deviation of relative partial disp.	
ΔPdC	0.0023
ΔPgF	-0.0086

Internal CC (80%/5%)	
346/276	
Color Code (80%/5%)	
370/280	
CCI	
B	0.00
G	0.37
R	0.37

Thermal properties	
CTE(-30,70) [1E-7/°C]	53
CTE(100,300) [1E-7/°C]	68
Tg [°C]	655
At [°C]	685
StP [°C]	609
AP [°C]	638
SP [°C]	739
Ht condct. [W/m·K]	0.910
Sp. heat [kJ/kg·K]	0.540
Ht diffus. [1E-6 m2/sec]	0.403

Chemical properties [class]	
Acid res. (surface)	6
Alkaline detergent res.	3
Climate resistance	1
Water res. (powder)	1
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	635 (6)
Abrasion hardness	50
Young's mod. [GPa]	101.8
Shear mod. [GPa]	39.2
Poisson's ratio	0.299
Stress optical coef. [1E-5 nm/cm/Pa]	1.82

Internal trans. (10mm)		
λ [nm]	τ	
280	0.07	
290	0.16	
300	0.25	
310	0.35	
320	0.50	
330	0.64	
340	0.75	
350	0.83	
360	0.900	
370	0.935	
380	0.959	
390	0.973	
400	0.981	
420	0.989	
440	0.992	
460	0.995	
480	0.997	
500	0.998	
550	0.999	
600	0.999	
650	0.999	
700	0.998	
800	0.999	
900	0.999	
1000	0.999	
1200	0.999	
1400	0.994	
1600	0.994	
1800	0.981	
2000	0.952	
2200	0.87	
2400	0.62	

Specific gravity	
4.19	

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.)	4.7	4.8	4.9	5.1	5.2	5.4	5.4	5.5	5.7	5.9	6.3	6.4	6.9	7.5	7.8		
60 to 80 (ref.)	4.6	4.7	4.9	5.0	5.1	5.3	5.3	5.4	5.6	5.8	6.2	6.3	6.8	7.3	7.6		
40 to 60	4.5	4.5	4.7	4.9	5.0	5.2	5.2	5.2	5.4	5.6	6.1	6.1	6.6	7.1	7.4		
20 to 40	4.4	4.5	4.6	4.8	4.9	5.1	5.1	5.1	5.3	5.5	5.9	6.0	6.5	6.9	7.3		
0 to 20	4.4	4.4	4.6	4.7	4.9	5.0	5.0	5.1	5.2	5.4	5.8	5.9	6.4	6.8	7.1		
-20 to 0	4.4	4.4	4.6	4.7	4.9	5.0	5.0	5.1	5.2	5.4	5.8	5.9	6.3	6.8	7.1		
-40 to -20	4.5	4.5	4.7	4.8	4.9	5.1	5.1	5.1	5.3	5.5	5.8	5.9	6.3	6.8	7.1		
-60 to -40 (ref.)	4.6	4.7	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.6	6.0	6.0	6.5	6.9	7.2		
-70 to -60 (ref.)	4.8	4.9	5.1	5.2	5.3	5.4	5.5	5.5	5.6	5.8	6.2	6.2	6.6	7.1	7.3		

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	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.4	4.6	4.8	5.2	5.3	5.8	6.3	6.7		
60 to 80	3.4	3.5	3.7	3.8	4.0	4.1	4.1	4.2	4.4	4.6	5.0	5.1	5.6	6.1	6.4		
40 to 60	3.2	3.2	3.4	3.6	3.7	3.8	3.9	3.9	4.1	4.3	4.7	4.8	5.2	5.7	6.0		
20 to 40	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.6	3.8	4.0	4.4	4.4	4.9	5.4	5.7		
0 to 20	2.7	2.7	2.9	3.0	3.1	3.3	3.3	3.3	3.5	3.7	4.1	4.1	4.6	5.0	5.3		
-20 to 0	2.4	2.5	2.6	2.7	2.9	3.0	3.0	3.1	3.2	3.4	3.8	3.8	4.2	4.7	5.0		
-40 to -20	2.1	2.2	2.4	2.5	2.6	2.7	2.7	2.8	2.9	3.1	3.4	3.5	3.9	4.3	4.6		
-60 to -40	1.9	1.9	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.8	3.1	3.2	3.6	4.0	4.2		
-70 to -60	1.7	1.7	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.6	2.9	2.9	3.3	3.7	4.0		

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.13952119E-01
Q1	6.75478386E+01
P2	7.11110326E-02
Q2	1.82745831E-02
P3	3.25258407E-01
Q3	4.14014530E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	4.5
Frac. eq. (ref.)	0.7	4.4

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-LAL61	HOYA	TAC2
CDGM	H-LaK61	SCHOTT	-

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq