

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
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	-

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq
2009-9-1	1st edition