

J-LAK02

$n_d = 1.670000$

$n_e = 1.672786$

$v_d = 57.35$

$v_e = 57.12$

Glass code (d)	670574
Glass code (e)	673571

Spectral l.	Refractive idx
2.058	1.64015
1.970	1.64172
1.530	1.64880
1.129	1.65483
1.064	1.65589
t	1.65677
s	1.66011
A'	1.662360
r	1.664409
C	1.666440
C'	1.667008
He-Ne	1.667537
D	1.669896
d	1.670000
e	1.672786
F	1.678123
F'	1.678787
g	1.684465
h	1.689730
0.389	1.692942
i	1.698708

Coef. disp. form. (pwr ser.)	
A0	2.74008995E+00
A1	-1.20461104E-02
A2	-1.75410927E-04
A3	1.76614454E-02
A4	1.89317290E-04
A5	1.04494737E-05
A6	-1.62215193E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.011683
F'-C'	0.011779
C-t	0.009670
C-A'	0.004080
d-C	0.003560
e-C	0.006346
g-d	0.014465
g-F	0.006342
h-g	0.005265
i-g	0.014243
C'-t	0.010238
e-C'	0.005778
F'-e	0.006001
i-F'	0.019921

Relative partial dispersion	
C-t/F-C	0.8277
C-A'/F-C	0.3492
d-C/F-C	0.3047
e-C/F-C	0.5432
g-d/F-C	1.2381
g-F/F-C	0.5428
h-g/F-C	0.4507
i-g/F-C	1.2191
C'-t/F'-C'	0.8692
e-C'/F'-C'	0.4905
F'-e/F'-C'	0.5095
i-F'/F'-C'	1.6912

Deviation of relative partial disp.	
ΔPdC	0.0016
ΔPgF	-0.0053

Internal CC (80%/5%)	
343/278	

Color Code (80%/5%)	
360/280	

CCI	
B	0.00
G	0.43
R	0.43

Thermal properties	
CTE(-30,70) [1E-7/°C]	63
CTE(100,300) [1E-7/°C]	78
Tg [°C]	645
At [°C]	675
Ht condct. [W/m·K]	0.788
Sp. heat [kJ/kg·K]	0.532
Ht diffus. [1E-6 m2/sec]	0.395

Chemical properties [class]	
Acid res. (surface)	5
Alkaline detergent res.	4
Climate resistance	2
Water res. (powder)	3
Acid res. (powder)	5

Mechanical properties	
Knoop hardness	631 (6)
Abrasion hardness	139
Young's mod. [GPa]	96.6
Shear mod. [GPa]	37.6
Poisson's ratio	0.283
Stress optical coef. [1E-5 nm/cm/Pa]	1.87

Internal trans. (10mm)	
λ [nm]	τ
280	0.06
290	0.13
300	0.25
310	0.39
320	0.54
330	0.67
340	0.78
350	0.86
360	0.914
370	0.946
380	0.965
390	0.975
400	0.981
420	0.986
440	0.988
460	0.992
480	0.994
500	0.996
550	0.998
600	0.997
650	0.998
700	0.999
800	0.998
900	0.997
1000	0.997
1200	0.997
1400	0.992
1600	0.988
1800	0.975
2000	0.954
2200	0.86
2400	0.65

Specific gravity	
3.75	

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.)	1.4	1.4	1.5	1.7	1.8	1.9	1.9	2.0	2.1	2.3	2.6	2.6	3.0	3.4	3.6	
60 to 80 (ref.)	1.3	1.3	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.2	2.5	2.5	2.9	3.2	3.5	
40 to 60	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.9	2.1	2.4	2.4	2.8	3.1	3.3	
20 to 40	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8	2.0	2.3	2.3	2.7	3.0	3.2	
0 to 20	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	2.2	2.3	2.6	2.9	3.1	
-20 to 0	1.2	1.2	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.9	2.2	2.3	2.6	2.9	3.1	
-40 to -20	1.3	1.3	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.3	2.3	2.6	2.9	3.1	
-60 to -40 (ref.)	1.5	1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.1	2.2	2.5	2.5	2.8	3.1	3.3	
-70 to -60 (ref.)	1.7	1.8	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.4	2.7	2.7	3.0	3.3	3.5	

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	0.4	0.4	0.5	0.6	0.8	0.9	0.9	0.9	1.1	1.2	1.5	1.6	1.9	2.3	2.5	
60 to 80	0.2	0.2	0.4	0.5	0.6	0.7	0.7	0.7	0.9	1.0	1.3	1.4	1.7	2.1	2.3	
40 to 60	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.8	1.1	1.1	1.4	1.8	2.0	
20 to 40	-0.3	-0.2	-0.1	0.0	0.1	0.2	0.2	0.2	0.4	0.5	0.8	0.8	1.2	1.5	1.7	
0 to 20	-0.5	-0.4	-0.3	-0.2	-0.1	0.0	0.0	0.0	0.1	0.3	0.5	0.6	0.9	1.2	1.4	
-20 to 0	-0.7	-0.7	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2	-0.1	0.0	0.3	0.3	0.6	0.9	1.1	
-40 to -20	-0.9	-0.9	-0.8	-0.7	-0.6	-0.5	-0.5	-0.5	-0.4	-0.2	0.0	0.0	0.3	0.6	0.8	
-60 to -40	-1.2	-1.1	-1.0	-0.9	-0.8	-0.8	-0.7	-0.7	-0.6	-0.5	-0.3	-0.2	0.0	0.3	0.5	
-70 to -60	-1.3	-1.3	-1.2	-1.1	-1.0	-0.9	-0.9	-0.9	-0.8	-0.7	-0.5	-0.4	-0.2	0.1	0.3	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.16396191E-01
Q1	7.13715725E+01
P2	2.60772282E-02
Q2	2.34562516E-02
P3	3.41070979E-01
Q3	5.05461332E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	9.8
Frac. eq. (ref.)	0.7	10.2

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

2019-4-1	Transmittance
2018-4-1	Prod. Freq.
2015-4-1	Color Code, Prod. Freq.