

J-LAK13

$n_d = 1.693500$

$n_e = 1.696606$

$v_d = 53.21$

$v_e = 52.96$

Glass code (d)
694532
Glass code (e)
697530

Spectral l.	Refractive idx
2.058	1.66203
1.970	1.66360
1.530	1.67073
1.129	1.67697
1.064	1.67809
t	1.67903
s	1.68261
A'	1.685063
r	1.687310
C	1.689551
C'	1.690178
He-Ne	1.690764
D	1.693384
d	1.693500
e	1.696606
F	1.702585
F'	1.703332
g	1.709727
h	1.715682
0.389	1.719326
i	1.725887

Coef. disp. form. (pwr ser.)	
A0	2.81256049E+00
A1	-1.23338559E-02
A2	-1.46274016E-04
A3	1.96331804E-02
A4	3.19216380E-04
A5	3.67504765E-06
A6	2.77132755E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.013034
F'-C'	0.013154
C-t	0.010526
C-A'	0.004488
d-C	0.003949
e-C	0.007055
g-d	0.016227
g-F	0.007142
h-g	0.005955
i-g	0.016160
C'-t	0.011153
e-C'	0.006428
F'-e	0.006726
i-F'	0.022555

Relative partial dispersion	
C-t/F-C	0.8076
C-A'/F-C	0.3443
d-C/F-C	0.3030
e-C/F-C	0.5413
g-d/F-C	1.2450
g-F/F-C	0.5480
h-g/F-C	0.4569
i-g/F-C	1.2398
C'-t/F'-C'	0.8479
e-C'/F'-C'	0.4887
F'-e/F'-C'	0.5113
i-F'/F'-C'	1.7147

Deviation of relative partial disp.	
ΔPdC	0.0018
ΔPgF	-0.0071

Internal CC (80%/5%)	
348/282	

Color Code (80%/5%)	
365/285	

CCI	
B	0.00
G	0.33
R	0.33

Thermal properties	
CTE(-30,70) [1E-7/°C]	60
CTE(100,300) [1E-7/°C]	74
Tg [°C]	619
At [°C]	653
Ht condct. [W/m·K]	0.876
Sp. heat [kJ/kg·K]	0.599
Ht diffus. [1E-6 m2/sec]	0.396

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

Mechanical properties	
Knoop hardness	618 (6)
Abrasion hardness	124
Young's mod. [GPa]	102.3
Shear mod. [GPa]	39.6
Poisson's ratio	0.292
Stress optical coef. [1E-5 nm/cm/Pa]	2.26

Internal trans. (10mm)	
λ [nm]	τ
280	0.04
290	0.09
300	0.17
310	0.29
320	0.43
330	0.58
340	0.71
350	0.82
360	0.89
370	0.934
380	0.960
390	0.974
400	0.982
420	0.990
440	0.992
460	0.994
480	0.996
500	0.997
550	0.998
600	0.998
650	0.998
700	0.998
800	0.998
900	0.998
1000	0.998
1200	0.999
1400	0.993
1600	0.993
1800	0.981
2000	0.958
2200	0.87
2400	0.65

Specific gravity	
3.69	

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.)	4.3	4.4	4.6	4.8	4.9	5.1	5.1	5.1	5.4	5.6	6.1	6.1	6.7	-	-	
60 to 80 (ref.)	4.2	4.3	4.5	4.6	4.8	4.9	5.0	5.0	5.2	5.4	5.9	6.0	6.5	-	-	
40 to 60	4.1	4.1	4.3	4.5	4.6	4.7	4.8	4.8	5.0	5.2	5.7	5.7	6.3	-	-	
20 to 40	3.9	4.0	4.2	4.3	4.5	4.6	4.6	4.7	4.9	5.1	5.5	5.6	6.1	-	-	
0 to 20	3.9	3.9	4.1	4.2	4.4	4.5	4.5	4.6	4.7	4.9	5.4	5.4	5.9	-	-	
-20 to 0	3.8	3.9	4.1	4.2	4.3	4.4	4.5	4.5	4.7	4.9	5.3	5.3	5.8	-	-	
-40 to -20	3.9	3.9	4.1	4.2	4.3	4.5	4.5	4.5	4.7	4.9	5.2	5.3	5.7	-	-	
-60 to -40 (ref.)	4.0	4.1	4.2	4.3	4.5	4.6	4.6	4.6	4.8	5.0	5.3	5.4	5.8	-	-	
-70 to -60 (ref.)	4.2	4.2	4.4	4.5	4.6	4.7	4.8	4.8	4.9	5.1	5.5	5.5	5.9	-	-	

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	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.1	4.3	4.5	5.0	5.1	5.6	-	-	
60 to 80	3.1	3.1	3.3	3.5	3.6	3.8	3.8	3.9	4.1	4.3	4.7	4.8	5.3	-	-	
40 to 60	2.8	2.8	3.0	3.2	3.3	3.5	3.5	3.5	3.7	3.9	4.4	4.4	5.0	-	-	
20 to 40	2.5	2.6	2.7	2.9	3.0	3.1	3.2	3.2	3.4	3.6	4.0	4.1	4.6	-	-	
0 to 20	2.2	2.3	2.4	2.6	2.7	2.8	2.9	2.9	3.1	3.2	3.6	3.7	4.2	-	-	
-20 to 0	1.9	2.0	2.1	2.3	2.4	2.5	2.5	2.6	2.7	2.9	3.3	3.3	3.8	-	-	
-40 to -20	1.6	1.7	1.8	2.0	2.1	2.2	2.2	2.2	2.4	2.6	2.9	3.0	3.4	-	-	
-60 to -40	1.3	1.4	1.5	1.6	1.8	1.9	1.9	1.9	2.1	2.2	2.6	2.6	3.0	-	-	
-70 to -60	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	2.0	2.3	2.3	2.7	-	-	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.16019105E-01
Q1	7.26275723E+01
P2	6.52063855E-02
Q2	1.91186180E-02
P3	3.11433626E-01
Q3	4.17724888E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	2.6
Frac. eq. (ref.)	0.4	2.6

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-LAL13	HOYA	LAC13
CDGM	H-LaK6A	SCHOTT	-

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