

J-LAF01

$n_d = 1.700000$

$n_e = 1.703462$

$v_d = 48.11$

$v_e = 47.82$

Glass code (d)	700481
Glass code (e)	703478

Spectral l.	Refractive idx
2.058	1.66933
1.970	1.67064
1.530	1.67675
1.129	1.68250
1.064	1.68359
t	1.68452
s	1.68819
A'	1.690785
r	1.693203
C	1.695645
C'	1.696333
He-Ne	1.696977
D	1.699871
d	1.700000
e	1.703462
F	1.710196
F'	1.711043
g	1.718350
h	1.725242
0.389	1.729503
i	-

Coef. disp. form. (pwr ser.)	
A0	2.82684251E+00
A1	-1.03793494E-02
A2	-7.59583803E-05
A3	2.16620460E-02
A4	4.72548975E-04
A5	-2.58637501E-06
A6	1.43317138E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.014551
F'-C'	0.014710
C-t	0.011126
C-A'	0.004860
d-C	0.004355
e-C	0.007817
g-d	0.018350
g-F	0.008154
h-g	0.006892
i-g	-
C'-t	0.011814
e-C'	0.007129
F'-e	0.007581
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7646
C-A'/F-C	0.3340
d-C/F-C	0.2993
e-C/F-C	0.5372
g-d/F-C	1.2611
g-F/F-C	0.5604
h-g/F-C	0.4736
i-g/F-C	-
C'-t/F'-C'	0.8031
e-C'/F'-C'	0.4846
F'-e/F'-C'	0.5154
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	0.0004
ΔPgF	-0.0033

Internal CC (80%/5%)	
369/336	

Color Code (80%/5%)	
385/335	

CCI	
B	0.00
G	0.66
R	0.63

Thermal properties	
CTE(-30,70) [1E-7/°C]	73
CTE(100,300) [1E-7/°C]	85
Tg [°C]	657
At [°C]	693
Ht condct. [W/m·K]	0.811
Sp. heat [kJ/kg·K]	0.545
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	575 (6)
Abrasion hardness	155
Young's mod. [GPa]	96.1
Shear mod. [GPa]	37.3
Poisson's ratio	0.287
Stress optical coef. [1E-5 nm/cm/Pa]	1.80

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.01
340	0.11
350	0.36
360	0.64
370	0.82
380	0.902
390	0.944
400	0.966
420	0.983
440	0.988
460	0.991
480	0.994
500	0.996
550	0.998
600	0.996
650	0.996
700	0.997
800	0.996
900	0.995
1000	0.995
1200	0.995
1400	0.994
1600	0.989
1800	0.980
2000	0.966
2200	0.925
2400	0.81

Specific gravity	
3.68	

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.)	2.0	2.1	2.2	2.5	2.6	2.8	2.8	2.9	3.1	3.4	3.9	4.0	4.6	-	-	
60 to 80 (ref.)	1.9	2.0	2.2	2.4	2.5	2.7	2.7	2.8	3.0	3.2	3.8	3.8	4.5	-	-	
40 to 60	1.8	1.9	2.1	2.2	2.4	2.5	2.6	2.6	2.8	3.1	3.6	3.7	4.3	-	-	
20 to 40	1.7	1.8	2.0	2.1	2.3	2.5	2.5	2.5	2.7	3.0	3.5	3.5	4.1	-	-	
0 to 20	1.7	1.8	2.0	2.1	2.2	2.4	2.4	2.5	2.7	2.9	3.4	3.4	4.0	-	-	
-20 to 0	1.7	1.8	2.0	2.1	2.2	2.4	2.4	2.5	2.6	2.9	3.3	3.4	3.9	-	-	
-40 to -20	1.8	1.9	2.0	2.2	2.3	2.4	2.5	2.5	2.7	2.9	3.3	3.4	3.9	-	-	
-60 to -40 (ref.)	2.0	2.0	2.2	2.3	2.5	2.6	2.6	2.7	2.8	3.0	3.5	3.5	4.0	-	-	
-70 to -60 (ref.)	2.2	2.2	2.4	2.5	2.7	2.8	2.8	2.9	3.0	3.2	3.6	3.7	4.2	-	-	

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	1.0	1.0	1.2	1.4	1.6	1.7	1.8	1.8	2.0	2.3	2.8	2.9	3.5	-	-	
60 to 80	0.8	0.8	1.1	1.2	1.4	1.5	1.6	1.6	1.8	2.1	2.6	2.7	3.3	-	-	
40 to 60	0.5	0.6	0.8	0.9	1.1	1.3	1.3	1.3	1.5	1.8	2.3	2.3	2.9	-	-	
20 to 40	0.3	0.3	0.5	0.7	0.8	1.0	1.0	1.1	1.3	1.5	2.0	2.0	2.6	-	-	
0 to 20	0.0	0.1	0.3	0.4	0.6	0.7	0.7	0.8	1.0	1.2	1.6	1.7	2.2	-	-	
-20 to 0	-0.2	-0.2	0.0	0.2	0.3	0.4	0.5	0.5	0.7	0.9	1.3	1.4	1.9	-	-	
-40 to -20	-0.5	-0.4	-0.2	-0.1	0.0	0.1	0.2	0.2	0.4	0.6	1.0	1.0	1.5	-	-	
-60 to -40	-0.7	-0.7	-0.5	-0.4	-0.2	-0.1	-0.1	-0.1	0.1	0.3	0.7	0.7	1.2	-	-	
-70 to -60	-0.9	-0.8	-0.7	-0.6	-0.5	-0.3	-0.3	-0.3	-0.1	0.1	0.4	0.5	0.9	-	-	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.24405553E-01
Q1	9.40421199E+01
P2	1.85633188E-02
Q2	3.72381886E-02
P3	3.59893584E-01
Q3	5.90236401E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	3.3
Frac. eq. (ref.)	0.7	2.7

Prod. Freq. (A to D)	C
----------------------	---

Similar glass type			
OHARA	S-LAM51	HOYA	-
CDGM	H-LaF51	SCHOTT	-

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