

# J-LAF02

$n_d = 1.720000$

$n_e = 1.723923$

$v_d = 43.61$

$v_e = 43.33$

Glass code (d)	720436
Glass code (e)	724433

Spectral l.	Refractive idx
2.058	1.68740
1.970	1.68868
1.530	1.69475
1.129	1.70067
1.064	1.70184
t	1.70283
s	1.70681
A'	1.709672
r	1.712362
C	1.715094
C'	1.715867
He-Ne	1.716590
D	1.719855
d	1.720000
e	1.723923
F	1.731604
F'	1.732574
g	1.740986
h	1.748991
0.389	1.753979
i	1.763154

Coef. disp. form. (pwr ser.)	
A0	2.88586901E+00
A1	-1.02242298E-02
A2	-5.73302650E-05
A3	2.43594329E-02
A4	6.71639978E-04
A5	-1.38459487E-05
A6	2.96139784E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.016510
F'-C'	0.016707
C-t	0.012269
C-A'	0.005422
d-C	0.004906
e-C	0.008829
g-d	0.020986
g-F	0.009382
h-g	0.008005
i-g	0.022168
C'-t	0.013042
e-C'	0.008056
F'-e	0.008651
i-F'	0.030580

Relative partial dispersion	
C-t/F-C	0.7431
C-A'/F-C	0.3284
d-C/F-C	0.2972
e-C/F-C	0.5348
g-d/F-C	1.2711
g-F/F-C	0.5683
h-g/F-C	0.4849
i-g/F-C	1.3427
C'-t/F'-C'	0.7806
e-C'/F'-C'	0.4822
F'-e/F'-C'	0.5178
i-F'/F'-C'	1.8304

Deviation of relative partial disp.	
$\Delta PdC$	0.0003
$\Delta PgF$	-0.0029

Internal CC (80%/5%)	
369/339	

Color Code (80%/5%)	
385/340	

CCI	
B	0.00
G	0.79
R	0.79

Thermal properties	
CTE(-30,70) [1E-7/°C]	68
CTE(100,300) [1E-7/°C]	83
Tg [°C]	577
At [°C]	626
Ht condct. [W/m·K]	0.838
Sp. heat [kJ/kg·K]	0.560
Ht diffus. [1E-6 m2/sec]	0.386

Chemical properties [class]	
Acid res. (surface)	4
Alkaline detergent res.	2
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	534 (5)
Abrasion hardness	184
Young's mod. [GPa]	98.9
Shear mod. [GPa]	38.4
Poisson's ratio	0.287
Stress optical coef. [1E-5 nm/cm/Pa]	2.33

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.07
350	0.34
360	0.65
370	0.82
380	0.900
390	0.939
400	0.960
420	0.979
440	0.986
460	0.990
480	0.993
500	0.995
550	0.997
600	0.997
650	0.997
700	0.998
800	0.997
900	0.997
1000	0.997
1200	0.998
1400	0.995
1600	0.992
1800	0.984
2000	0.972
2200	0.941
2400	0.86

Specific gravity	
3.88	

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.)	4.8	4.8	5.0	5.3	5.5	5.7	5.8	5.8	6.1	6.4	7.1	7.2	8.1	9.0	9.6
60 to 80 (ref.)	4.7	4.7	5.0	5.2	5.4	5.6	5.6	5.7	6.0	6.3	7.0	7.1	7.9	8.8	9.4
40 to 60	4.6	4.6	4.8	5.0	5.2	5.4	5.5	5.5	5.8	6.1	6.8	6.9	7.7	8.5	9.1
20 to 40	4.5	4.5	4.7	4.9	5.1	5.3	5.3	5.4	5.6	5.9	6.6	6.7	7.5	8.3	8.8
0 to 20	4.4	4.4	4.6	4.8	5.0	5.2	5.3	5.3	5.5	5.8	6.4	6.5	7.3	8.1	8.6
-20 to 0	4.4	4.4	4.6	4.8	5.0	5.2	5.2	5.3	5.5	5.8	6.4	6.4	7.2	7.9	8.4
-40 to -20	4.5	4.5	4.7	4.8	5.0	5.2	5.2	5.3	5.5	5.8	6.3	6.4	7.1	7.9	8.3
-60 to -40 (ref.)	4.6	4.6	4.8	5.0	5.2	5.3	5.4	5.4	5.6	5.9	6.4	6.5	7.2	7.9	8.3
-70 to -60 (ref.)	4.8	4.8	5.0	5.2	5.3	5.5	5.5	5.6	5.8	6.1	6.6	6.7	7.3	8.0	8.4

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	3.8	3.8	4.0	4.2	4.4	4.6	4.7	4.8	5.0	5.4	6.1	6.2	7.0	7.9	8.5
60 to 80	3.5	3.6	3.8	4.0	4.2	4.4	4.5	4.5	4.8	5.1	5.8	5.9	6.7	7.6	8.1
40 to 60	3.3	3.3	3.5	3.7	3.9	4.1	4.2	4.2	4.5	4.8	5.4	5.5	6.3	7.2	7.7
20 to 40	3.0	3.0	3.2	3.4	3.6	3.8	3.9	3.9	4.1	4.4	5.1	5.1	5.9	6.7	7.2
0 to 20	2.7	2.8	2.9	3.1	3.3	3.5	3.5	3.6	3.8	4.1	4.7	4.8	5.5	6.3	6.8
-20 to 0	2.4	2.5	2.7	2.8	3.0	3.2	3.2	3.3	3.5	3.8	4.3	4.4	5.1	5.9	6.3
-40 to -20	2.2	2.2	2.4	2.5	2.7	2.9	2.9	3.0	3.2	3.4	4.0	4.1	4.8	5.4	5.9
-60 to -40	1.9	1.9	2.1	2.2	2.4	2.6	2.6	2.7	2.9	3.1	3.6	3.7	4.4	5.0	5.4
-70 to -60	1.7	1.7	1.9	2.0	2.2	2.3	2.4	2.4	2.6	2.8	3.3	3.4	4.1	4.7	5.1

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.05823487E-01
Q1	8.48047843E+01
P2	1.47351472E-02
Q2	4.55784241E-02
P3	3.71185501E-01
Q3	6.60196546E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.8	5.5
Frac. eq. (ref.)	1.0	5.7

Prod. Freq. (A to D)	D
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Similar glass type			
OHARA	S-LAM52	HOYA	-
CDGM	H-LaF62	SCHOTT	-

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