

# J-LAF04

$n_d = 1.757000$

$n_e = 1.760764$

$v_d = 47.86$

$v_e = 47.62$

Glass code (d)
757479
Glass code (e)
761476

Spectral l.	Refractive idx
2.058	1.72026
1.970	1.72204
1.530	1.73016
1.129	1.73733
1.064	1.73864
t	1.73973
s	1.74396
A'	1.746868
r	1.749551
C	1.752239
C'	1.752994
He-Ne	1.753699
D	1.756860
d	1.757000
e	1.760764
F	1.768055
F'	1.768969
g	1.776843
h	1.784245
0.389	1.788810
i	-

Coef. disp. form. (pwr ser.)	
A0	3.01765567E+00
A1	-1.44029325E-02
A2	-1.73403131E-04
A3	2.41938931E-02
A4	5.02913780E-04
A5	-1.18295424E-07
A6	1.26171561E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.015816
F'-C'	0.015975
C-t	0.012506
C-A'	0.005371
d-C	0.004761
e-C	0.008525
g-d	0.019843
g-F	0.008788
h-g	0.007402
i-g	-
C'-t	0.013261
e-C'	0.007770
F'-e	0.008205
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7907
C-A'/F-C	0.3396
d-C/F-C	0.3010
e-C/F-C	0.5390
g-d/F-C	1.2546
g-F/F-C	0.5556
h-g/F-C	0.4680
i-g/F-C	-
C'-t/F'-C'	0.8301
e-C'/F'-C'	0.4864
F'-e/F'-C'	0.5136
i-F'/F'-C'	-

Deviation of relative partial disp.	
$\Delta PdC$	0.0022
$\Delta PgF$	-0.0084

Internal CC (80%/5%)	
364/329	
Color Code (80%/5%)	
385/330	
CCI	
B	0.00
G	0.63
R	0.65

Thermal properties	
CTE(-30,70) [1E-7/°C]	54
CTE(100,300) [1E-7/°C]	68
Tg [°C]	648
At [°C]	675
StP [°C]	-
AP [°C]	-
SP [°C]	-
Ht condct. [W/m·K]	0.844
Sp. heat [kJ/kg·K]	0.512
Ht diffus. [1E-6 m2/sec]	0.405

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

Mechanical properties	
Knoop hardness	645 (6)
Abrasion hardness	76
Young's mod. [GPa]	114.4
Shear mod. [GPa]	44.2
Poisson's ratio	0.295
Stress optical coef. [1E-5 nm/cm/Pa]	1.93

Internal trans. (10mm)		
$\lambda$ [nm]	$\tau$	
280	-	
290	-	
300	-	
310	-	
320	-	
330	0.07	
340	0.26	
350	0.53	
360	0.74	
370	0.86	
380	0.919	
390	0.952	
400	0.969	
420	0.984	
440	0.990	
460	0.993	
480	0.996	
500	0.997	
550	0.999	
600	0.999	
650	0.999	
700	0.999	
800	0.997	
900	0.995	
1000	0.995	
1200	0.996	
1400	0.993	
1600	0.989	
1800	0.978	
2000	0.957	
2200	0.88	
2400	0.64	

Specific gravity
4.07

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.)	4.6	4.7	4.8	5.0	5.2	5.3	5.4	5.4	5.7	5.9	6.5	6.6	7.3	-	-	-
60 to 80 (ref.)	4.4	4.5	4.7	4.9	5.0	5.2	5.2	5.3	5.5	5.7	6.3	6.4	7.1	-	-	-
40 to 60	4.3	4.3	4.5	4.7	4.8	5.0	5.0	5.1	5.3	5.5	6.0	6.1	6.8	-	-	-
20 to 40	4.1	4.2	4.4	4.5	4.7	4.8	4.8	4.9	5.1	5.3	5.8	5.9	6.5	-	-	-
0 to 20	4.0	4.1	4.3	4.4	4.5	4.7	4.7	4.7	4.9	5.1	5.6	5.7	6.3	-	-	-
-20 to 0	4.0	4.0	4.2	4.3	4.5	4.6	4.6	4.7	4.8	5.0	5.5	5.5	6.1	-	-	-
-40 to -20	4.0	4.1	4.2	4.3	4.4	4.6	4.6	4.6	4.8	5.0	5.4	5.5	6.0	-	-	-
-60 to -40 (ref.)	4.1	4.2	4.3	4.4	4.5	4.7	4.7	4.7	4.9	5.1	5.5	5.5	6.0	-	-	-
-70 to -60 (ref.)	4.3	4.3	4.5	4.6	4.7	4.8	4.8	4.9	5.0	5.2	5.6	5.6	6.1	-	-	-

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	3.5	3.6	3.8	3.9	4.1	4.3	4.3	4.3	4.6	4.8	5.4	5.5	6.2	-	-	-
60 to 80	3.3	3.3	3.5	3.7	3.8	4.0	4.0	4.1	4.3	4.5	5.1	5.2	5.8	-	-	-
40 to 60	3.0	3.0	3.2	3.3	3.5	3.6	3.7	3.7	3.9	4.2	4.7	4.7	5.4	-	-	-
20 to 40	2.6	2.7	2.9	3.0	3.1	3.3	3.3	3.4	3.5	3.8	4.3	4.3	4.9	-	-	-
0 to 20	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.0	3.2	3.4	3.8	3.9	4.5	-	-	-
-20 to 0	2.0	2.0	2.2	2.3	2.4	2.6	2.6	2.6	2.8	3.0	3.4	3.5	4.0	-	-	-
-40 to -20	1.7	1.7	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.6	3.0	3.1	3.6	-	-	-
-60 to -40	1.4	1.4	1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.2	2.6	2.6	3.1	-	-	-
-70 to -60	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.8	1.9	2.3	2.3	2.8	-	-	-

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.15921577E-01
Q1	6.78156111E+01
P2	2.43802201E-02
Q2	3.30454930E-02
P3	3.77727144E-01
Q3	5.55046977E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	4.0
Frac. eq. (ref.)	0.6	5.0

Prod. Freq. (A to D)	D
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Similar glass type			
OHARA	S-LAM54	HOYA	-
CDGM	H-LaF6LA	SCHOTT	-

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