

# J-LAF016

$n_d = 1.801000$

$n_e = 1.806432$

$v_d = 34.92$

$v_e = 34.68$

Glass code (d)	801349
Glass code (e)	806347

Spectral l.	Refractive idx
2.058	1.75702
1.970	1.75875
1.530	1.76688
1.129	1.77479
1.064	1.77635
t	1.77767
s	1.78303
A'	1.786896
r	1.790544
C	1.794267
C'	1.795323
He-Ne	1.796314
D	1.800800
d	1.801000
e	1.806432
F	1.817203
F'	1.818577
g	1.830628
h	1.842343
0.389	1.849780
i	-

Coef. disp. form. (pwr ser.)	
A0	3.13977744E+00
A1	-1.36971027E-02
A2	-1.62026634E-04
A3	3.48771551E-02
A4	5.87991861E-04
A5	1.35087453E-04
A6	-1.23042975E-05
A7	9.55959268E-07
A8	0.00000000E+00

Partial dispersion	
F-C	0.022936
F'-C'	0.023254
C-t	0.016596
C-A'	0.007371
d-C	0.006733
e-C	0.012165
g-d	0.029628
g-F	0.013425
h-g	0.011715
i-g	-
C'-t	0.017652
e-C'	0.011109
F'-e	0.012145
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7236
C-A'/F-C	0.3214
d-C/F-C	0.2936
e-C/F-C	0.5304
g-d/F-C	1.2918
g-F/F-C	0.5853
h-g/F-C	0.5108
i-g/F-C	-
C'-t/F'-C'	0.7591
e-C'/F'-C'	0.4777
F'-e/F'-C'	0.5223
i-F'/F'-C'	-

Deviation of relative partial disp.	
$\Delta PdC$	0.0006
$\Delta PgF$	-0.0004

Internal CC (80%/5%)	
387/350	

Color Code (80%/5%)	
435/350	

CCI	
B	0.00
G	2.52
R	2.64

Thermal properties	
CTE(-30,70) [1E-7/°C]	62
CTE(100,300) [1E-7/°C]	75
Tg [°C]	632
At [°C]	671
Ht condct. [W/m·K]	1.010
Sp. heat [kJ/kg·K]	0.603
Ht diffus. [1E-6 m2/sec]	0.462

Chemical properties [class]	
Acid res. (surface)	1
Alkaline detergent res.	1
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	3

Mechanical properties	
Knoop hardness	649 (6)
Abrasion hardness	93
Young's mod. [GPa]	112.5
Shear mod. [GPa]	43.7
Poisson's ratio	0.288
Stress optical coef. [1E-5 nm/cm/Pa]	2.47

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	0.00
350	0.04
360	0.25
370	0.53
380	0.73
390	0.83
400	0.88
420	0.932
440	0.956
460	0.969
480	0.979
500	0.985
550	0.995
600	0.996
650	0.997
700	0.998
800	0.998
900	0.997
1000	0.998
1200	0.999
1400	0.999
1600	0.994
1800	0.987
2000	0.972
2200	0.924
2400	0.77

Specific gravity	
3.63	

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.)	5.1	5.2	5.5	5.8	6.0	6.3	6.4	6.5	6.8	7.3	8.2	8.4	9.6	11.0	12.0	
60 to 80 (ref.)	4.9	5.0	5.3	5.6	5.8	6.1	6.2	6.2	6.6	7.0	8.0	8.1	9.3	10.7	11.6	
40 to 60	4.6	4.7	5.1	5.3	5.5	5.8	5.9	5.9	6.3	6.7	7.6	7.7	8.9	10.2	11.1	
20 to 40	4.4	4.5	4.8	5.1	5.3	5.5	5.6	5.7	6.0	6.4	7.3	7.4	8.5	9.8	10.7	
0 to 20	4.3	4.4	4.6	4.9	5.1	5.3	5.4	5.4	5.8	6.1	7.0	7.1	8.2	9.4	10.2	
-20 to 0	4.2	4.2	4.5	4.7	4.9	5.2	5.2	5.3	5.6	5.9	6.7	6.8	7.9	9.0	9.9	
-40 to -20	4.1	4.2	4.5	4.7	4.9	5.1	5.1	5.2	5.5	5.8	6.6	6.7	7.7	8.8	9.6	
-60 to -40 (ref.)	4.2	4.2	4.5	4.7	4.9	5.1	5.1	5.2	5.5	5.8	6.5	6.6	7.6	8.6	9.4	
-70 to -60 (ref.)	4.3	4.4	4.6	4.8	5.0	5.2	5.2	5.3	5.6	5.9	6.6	6.7	7.6	8.6	9.4	

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	4.0	4.1	4.4	4.7	4.9	5.2	5.3	5.3	5.7	6.1	7.1	7.2	8.5	9.9	10.9	
60 to 80	3.7	3.8	4.1	4.4	4.6	4.9	4.9	5.0	5.4	5.8	6.7	6.8	8.0	9.4	10.4	
40 to 60	3.3	3.4	3.7	3.9	4.2	4.4	4.5	4.6	4.9	5.3	6.2	6.3	7.5	8.8	9.7	
20 to 40	2.9	3.0	3.3	3.5	3.7	4.0	4.0	4.1	4.4	4.8	5.7	5.8	6.9	8.1	9.0	
0 to 20	2.5	2.6	2.9	3.1	3.3	3.5	3.6	3.7	4.0	4.3	5.1	5.2	6.3	7.5	8.4	
-20 to 0	2.1	2.2	2.5	2.7	2.9	3.1	3.1	3.2	3.5	3.8	4.6	4.7	5.7	6.9	7.7	
-40 to -20	1.7	1.8	2.0	2.2	2.4	2.6	2.7	2.8	3.0	3.4	4.1	4.2	5.1	6.2	7.0	
-60 to -40	1.3	1.4	1.6	1.8	2.0	2.2	2.3	2.3	2.6	2.9	3.6	3.7	4.6	5.6	6.4	
-70 to -60	1.0	1.1	1.3	1.5	1.7	1.9	1.9	2.0	2.2	2.5	3.2	3.3	4.1	5.1	5.9	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.24953414E-01
Q1	7.94266552E+01
P2	2.27890133E-02
Q2	5.07623993E-02
P3	3.93600073E-01
Q3	6.96293926E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	1.9
Frac. eq. (ref.)	1.1	2.2

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	S-LAM66	HOYA	-
CDGM	H-ZLaF66	SCHOTT	N-LASF45

2019-4-1	Transmittance
2015-4-1	Color Code
2009-9-1	1st edition