

<b>D-LaF731</b>	<b>731405</b>	$n_d = 1.73077$	$v_d = 40.50$	$n_F - n_C = 0.018043$
		$n_e = 1.73505$	$v_e = 40.25$	$n_{F'} - n_{C'} = 0.018263$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	1.68874
$n_{1970}$	1970.09	1.69525
$n_{1530}$	1529.58	1.70254
$n_{1129}$	1128.64	1.70947
$n_{1064}$	1064.00	1.71080
$n_t$	1013.98	1.71191
$n_s$	852.11	1.71635
$n_{A'}$	768.19	1.71949
$n_f$	706.52	1.72243
$n_C$	656.27	1.72541
$n_{C'}$	643.85	1.72625
$n_{He-Ne}$	632.80	1.72705
$n_D$	589.29	1.73061
$n_d$	587.56	1.73077
$n_e$	546.07	1.73505
$n_F$	486.13	1.74345
$n_{F'}$	479.99	1.74452
$n_g$	435.84	1.75376
$n_h$	404.66	1.76260
$n_i$	365.01	1.77835

Relative Partial Dispersion	
$P_{d,C}$	0.2971
$P_{e,d}$	0.2372
$P_{g,F}$	0.5714
$P'_{d,c'}$	0.2475
$P'_{e,d}$	0.2344
$P'_{g,f'}$	0.5059

Chemical Properties (grade)	
RC (S)	1
RA (S)	3
D <sub>W</sub>	1
D <sub>A</sub>	2
R <sub>OH</sub> (S)	1
RP (S)	2
CR	

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.900	0.810
2200	0.982	0.964
2000	0.995	0.990
1800	0.999	0.998
1600	0.999	0.998
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.998
850	0.999	0.998
800	0.999	0.998
750	0.999	0.998
700	0.999	0.998
650	0.999	0.998
600	0.999	0.998
550	0.997	0.995
500	0.995	0.992
480	0.992	0.988
460	0.989	0.982
440	0.985	0.974
420	0.975	0.953
400	0.967	0.937
390	0.951	0.908
380	0.923	0.856
370	0.863	0.752
360	0.728	0.535
350	0.410	0.171
340	0.057	0.008
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0023
$\Delta P_{g,F}$	-0.0049
$\Delta P_{C,t}$	0.0118
$\Delta P_{C,s}$	0.0045

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	87
-40/-30	90
-30/-20	91
-20/-10	93
-10/0	94
0/10	95
10/20	96
20/30	97
30/40	97
40/50	98
50/60	98
60/70	99
70/80	100
80/90	101
90/100	102
100/110	103
110/120	104
120/130	105
130/140	106
140/150	108
150/160	109

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	498
T <sub>s</sub> ( $^{\circ}C$ )	533
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	460
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	492
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	95
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	112
$\lambda$ (W/(m K))	1.29
$\beta_d$	105

Constants of Dispersion Formula	
A <sub>0</sub>	2.91839395E+00
A <sub>1</sub>	-1.31881796E-02
A <sub>2</sub>	2.56126448E-02
A <sub>3</sub>	9.59611523E-04
A <sub>4</sub>	-3.53323234E-05
A <sub>5</sub>	4.57862484E-06

Mechanical Properties	
HK ( $10^7$ Pa)	611
F <sub>A</sub>	127
E (GPa)	111.9
G (GPa)	43.2
$\mu$	0.296
$\sigma_b$ (MPa)	64
B ( $10^{-12}/Pa$ )	1.96

Density	Solarization
$\rho$ (g/cm <sup>3</sup> ) 3.21	$\Delta\lambda$ (%) 0.0

Range of Temperature ( $^{\circ}C$ )	Temperature Coefficients of Refractive Index									
	dn/dt relative ( $\times 10^{-6} / ^{\circ}C$ )									
	t	s	C	C'	He-Ne	d	e	F	F'	g
-60 ~ -40	1.1	1.4	1.7	1.8	2.2	2.3	2.5	2.8	2.9	3.6
-40 ~ -20	1.3	1.6	1.9	2.0	2.4	2.7	2.7	3.1	3.3	4.1
-20 ~ 0	1.5	1.8	2.1	2.2	2.7	2.9	3.0	3.4	3.5	4.3
0 ~ 20	1.6	2.0	2.4	2.5	2.9	3.1	3.3	3.6	3.8	4.5
20 ~ 40	1.8	2.2	2.6	2.7	2.9	3.2	3.5	3.8	4.0	4.8
40 ~ 60	1.9	2.2	2.6	2.8	2.9	3.3	3.7	4.0	4.1	5.0
60 ~ 80	2.2	2.3	2.7	2.9	3.0	3.5	3.8	4.2	4.3	5.2
80 ~ 100	2.3	2.5	2.8	2.9	3.1	3.6	4.0	4.4	4.5	5.4
100 ~ 120	2.4	2.7	2.9	3.0	3.2	3.7	4.1	4.5	4.6	5.7
120 ~ 140	2.4	2.7	2.9	3.0	3.3	3.8	4.3	4.6	4.7	6.0
140 ~ 160	2.6	2.8	3.0	3.1	3.4	3.9	4.4	4.8	4.8	6.3

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	390/340
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	364/335

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
-4.06E-07	1.61E-08	-3.91E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
7.84E-07	7.44E-10	2.13E-01