H-LaF4A 750350

$n_d = 1.74950$	$\upsilon_d = 35.04$	$n_F - n_C = 0.021390$
$n_e = 1.75456$	$\upsilon_e = 34.77$	$n_{F'} - n_{C'} = 0.021700$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	
n_{1970}	1970.09	
n_{1530}	1529.58	
n_{1129}	1128.64	1.72537
n_{1064}	1064.00	1.72677
n_t	1013.98	1.72796
n_s	852.11	1.73284
$n_{A'}$	768.19	1.73640
n_r	706.52	1.73977
n_C	656.27	1.74324
$n_{C'}$	643.85	1.74422
n_{He-Ne}	632.80	1.74513
n_D	589.29	1.74931
n_d	587.56	1.74950
n_e	546.07	1.75456
n_F	486.13	1.76463
$n_{F'}$	479.99	1.76592
n_g	435.84	1.77721
n_h	404.66	1.78821
n_i	365.01	1.80840

Relative Partial Dispersion	
$P_{d,C}$	0.2927
$P_{e,d}$	0.2366
$P_{g,F}$	0.5881
$P'_{d,c'}$	0.2433
$P'_{e,d}$	0.2332
$P'_{g,F'}$	0.5203

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	0.0027
$\Delta P_{C,t}$	0.0044
$\Delta P_{C,s}$	0.0017

Thermal Properties	
Tg (℃)	576
Ts (℃)	620
$T_{10}^{14.5}$ (℃)	507
T_{10}^{13} (℃)	548
$\alpha_{-50/80℃}$ (10^{-7}/K)	80
$\alpha_{100/300℃}$ (10^{-7}/K)	98
λ (W/(m·K))	0.81

Mechanical Properties	
HK (10^7Pa)	526
F_A	177
E (GPa)	93.7
G (GPa)	36.3
μ	0.290
σ_b (MPa)	71.5
B (10^{-12}/Pa)	2.36

Chemical Properties (grade)	
RC (S)	1
RA (S)	1
D_W	1
D_A	3
R_{OH} (S)	1
RP (S)	1

Expansion Coefficient α ($\times 10^{-7}$/K)	
℃	α
-50/-40	72
-40/-30	74
-30/-20	75
-20/-10	75
-10/0	77
0/10	78
10/20	80
20/30	81
30/40	83
40/50	85
50/60	85
60/70	86
70/80	87
80/90	87
90/100	87
100/110	88
110/120	89
120/130	89
130/140	96
140/150	96
150/160	97

Internal Transmittance		
λ (nm)	τ5mm	τ10mm
2400	0.933	0.871
2200	0.980	0.960
2000	0.992	0.983
1800	0.996	0.992
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	0.998	0.997
650	0.998	0.997
600	0.998	0.996
550	0.997	0.995
500	0.994	0.989
480	0.991	0.983
460	0.988	0.976
440	0.982	0.965
420	0.971	0.943
400	0.941	0.886
390	0.910	0.829
380	0.853	0.727
370	0.733	0.537
360	0.489	0.239
350	0.161	0.026
340		
330		
320		
310		
300		
290		
280		

Constants of Dispersion Formula	
A_0	2.96710812E+00
A_1	-1.16353219E-02
A_2	3.04712653E-02
A_3	1.14514132E-03
A_4	-3.15749319E-05
A_5	7.84016441E-06

Density	
ρ (g/cm^3)	3.84

Solarization	
△λ (%)	-0.3

Range of Temperature (℃)	Temperature Coefficients of Refractive Index dn/dt relative ($\times 10^{-6}$ / ℃)									
	t	s	C	C'	He-Ne	d	e	F	F'	g
-60 ~ -40	0.6	1.0	1.4	1.4	1.5	1.6	2.1	2.5	2.6	3.5
-40 ~ -20	0.6	1.0	1.4	1.4	1.5	1.6	2.1	2.6	2.7	3.6
-20 ~ 0	0.6	1.0	1.5	1.5	1.5	1.6	2.2	2.6	2.7	3.8
0 ~ 20	0.7	1.1	1.5	1.6	1.6	1.7	2.3	2.7	2.8	3.9
20 ~ 40	0.7	1.1	1.6	1.6	1.7	1.8	2.4	2.8	3.0	4.2
40 ~ 60	0.8	1.3	1.8	1.8	1.9	2.0	2.2	3.0	3.2	4.3
60 ~ 80	0.9	1.5	1.9	2.0	2.1	2.2	2.6	3.3	3.4	4.6
80 ~ 100	1.0	1.7	2.1	2.1	2.2	2.3	2.7	3.6	3.7	4.8
100 ~ 120	1.2	1.9	2.1	2.2	2.3	2.5	2.9	3.9	4.0	5.0
120 ~ 140	1.2	2.1	2.4	2.4	2.5	2.6	3.1	4.1	4.1	5.3
140 ~ 160	1.4	2.2	2.5	2.5	2.6	2.7	3.3	4.2	4.3	5.5

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	415/355
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	387/353

Constants of dn/dt		
D_0	D_1	D_2
-1.97E-06	1.30E-08	-1.43E-11
E_0	E_1	λ_{TK}
6.27E-07	5.47E-10	2.84E-01