

H-LaF4 750350	$n_d = 1.74950$	$\nu_d = 35.04$	$n_F - n_C = 0.021390$
	$n_e = 1.75456$	$\nu_e = 34.77$	$n_{F'} - n_{C'} = 0.021700$

Refractive Indices		
	$\lambda(\text{nm})$	n_λ
n_{2325}	2325.42	1.70492
n_{1970}	1970.09	1.71111
n_{1530}	1529.58	1.71821
n_{1129}	1128.64	1.72529
n_t	1013.98	1.72791
n_s	852.11	1.73282
$n_{A'}$	768.19	1.73638
n_r	706.52	1.73976
n_C	656.27	1.74324
$n_{C'}$	643.85	1.74422
$n_{\text{He-Ne}}$	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	1.77718
n_h	404.66	1.78813
n_i	365.01	1.80817

Constants of Dispersion Formula	
A_0	2.96835124E+00
A_1	-1.24121364E-02
A_2	2.96121393E-02
A_3	1.42472271E-03
A_4	-7.04844466E-05
A_5	9.47263949E-06

Relative Partial Dispersions			
$P_{d,C}$	0.2927	$P'_{d,C'}$	0.2433
$P_{e,d}$	0.2366	$P'_{e,d}$	0.2332
$P_{g,F}$	0.5867	$P'_{g,F'}$	0.5189

Range of Temperature (°C)	Temperature Coefficients of Refractive Index						
	dn/dt relative ($10^{-6} / ^\circ\text{C}$)						
	t	C'	He-Ne	D	e	F'	g
-40 ~ -20	0.5	1.3	1.3	1.5	1.9	2.6	3.5
-20 ~ 0	0.4	1.2	1.3	1.6	1.9	2.7	3.6
0 ~ 20	0.4	1.3	1.3	1.6	2.0	2.8	3.8
20 ~ 40	0.5	1.4	1.4	1.7	2.1	3.0	4.0
40 ~ 60	0.6	1.5	1.6	1.8	2.2	3.2	4.2
60 ~ 80	0.7	1.7	1.7	2.0	2.4	3.4	4.5

Chemical Properties (grade)	
RC(S)	1
RA(S)	1
D_W	1
D_A	2
$R_{OH}(S)$	1
RP(S)	2

Thermal Properties	
$T_g(^\circ\text{C})$	580
$T_s(^\circ\text{C})$	635
$T_{10}^{14.5}(^\circ\text{C})$	528
$T_{10}^{13}(^\circ\text{C})$	569
$\alpha_{-50/80^\circ\text{C}}(10^{-7}/\text{K})$	78
$\alpha_{100/300^\circ\text{C}}(10^{-7}/\text{K})$	95

Mechanical Properties	
HK(10^7Pa)	514
F_A	173
$E(10^7\text{Pa})$	9100
$G(10^7\text{Pa})$	3560
μ	0.278
$B(\text{nm}/\text{cm}/10^5\text{Pa})$	2.480

Density	
$\rho(\text{g}/\text{cm}^3)$	3.85

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	0.0013
$\Delta P_{C,t}$	0.0068
$\Delta P_{C,s}$	0.0026

Internal Transmittance		
$\lambda(\text{nm})$	$\tau_5\text{mm}$	$\tau_{10}\text{mm}$
2400	0.934	0.872
2200	0.978	0.956
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
900	0.999	0.998
850	0.998	0.996
800	0.998	0.996
750	0.998	0.996
700	0.998	0.996
650	0.998	0.996
600	0.998	0.996
550	0.998	0.996
500	0.998	0.996
480	0.993	0.986
460	0.990	0.980
440	0.982	0.964
420	0.966	0.933
400	0.924	0.854
390	0.888	0.789
380	0.819	0.671
370	0.707	0.500
360	0.506	0.256
350	0.202	0.041
340		
330		
320		
310		
300		
290		
280		

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	415/350

Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	389/350