

<b>H-LaF53</b>	<b>743492</b>	$n_d = 1.74330$	$v_d = 49.22$	$n_F - n_C = 0.015101$
		$n_e = 1.74690$	$v_e = 48.99$	$n_F - n_C = 0.015246$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	1.70297
$n_{1970}$	1970.09	1.70999
$n_{1530}$	1529.58	1.71767
$n_{1129}$	1128.64	1.72455
$n_{1064}$	1064.00	1.72580
$n_t$	1013.98	1.72685
$n_s$	852.11	1.73087
$n_{A'}$	768.19	1.73364
$n_f$	706.52	1.73619
$n_C$	656.27	1.73875
$n_{C'}$	643.85	1.73947
$n_{He-Ne}$	632.80	1.74015
$n_D$	589.29	1.74317
$n_d$	587.56	1.74330
$n_e$	546.07	1.74690
$n_F$	486.13	1.75385
$n_{F'}$	479.99	1.75472
$n_g$	435.84	1.76221
$n_h$	404.66	1.76921
$n_i$	365.01	1.78127

Relative Partial Dispersion	
$P_{d,C}$	0.3013
$P_{e,d}$	0.2384
$P_{g,F}$	0.5536
$P'_{d,c'}$	0.2512
$P'_{e,d}$	0.2361
$P'_{g,F'}$	0.4913

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

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.761	0.580
2200	0.914	0.835
2000	0.975	0.951
1800	0.993	0.986
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	0.999	0.998
500	0.999	0.998
480	0.999	0.998
460	0.998	0.996
440	0.997	0.994
420	0.996	0.992
400	0.992	0.987
390	0.987	0.980
380	0.981	0.970
370	0.970	0.950
360	0.951	0.914
350	0.924	0.862
340	0.880	0.786
330	0.815	0.673
320	0.705	0.508
310	0.505	0.263
300	0.187	0.039
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0028
$\Delta P_{g,F}$	-0.0082
$\Delta P_{C,t}$	0.0094
$\Delta P_{C,s}$	0.0033

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	44
-40/-30	47
-30/-20	49
-20/-10	50
-10/0	51
0/10	52
10/20	53
20/30	53
30/40	53
40/50	54
50/60	54
60/70	54
70/80	55
80/90	56
90/100	57
100/110	58
110/120	59
120/130	60
130/140	61
140/150	62
150/160	63

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	608
T <sub>s</sub> ( $^{\circ}C$ )	634
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	550
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	578
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	50
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	66
$\lambda$ (W/(m K))	0.83

Constants of Dispersion Formula	
A <sub>0</sub>	2.97513891E+00
A <sub>1</sub>	-1.46215956E-02
A <sub>2</sub>	2.17492662E-02
A <sub>3</sub>	8.02001413E-04
A <sub>4</sub>	-3.64703266E-05
A <sub>5</sub>	2.12357903E-06

Mechanical Properties	
HK ( $10^7$ Pa)	661
F <sub>A</sub>	83
E (GPa)	110.1
G (GPa)	41.5
$\mu$	0.327
$\sigma_b$ (MPa)	75
B ( $10^{-12}$ /Pa)	2.18

Density	Solarization
$\rho$ (g/cm <sup>3</sup> )	$\Delta\lambda$ (%)
4.15	-1.1

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	7.4	7.7	7.9	7.9	7.9	8.1	8.5	8.9	9.0	9.5
-40 ~ -20	7.3	7.8	8.1	8.1	8.0	8.2	8.5	9.0	9.1	9.6
-20 ~ 0	7.3	7.9	8.1	8.1	8.1	8.2	8.6	9.1	9.2	9.7
0 ~ 20	7.4	8.0	8.2	8.2	8.2	8.3	8.7	9.2	9.3	9.8
20 ~ 40	7.4	8.0	8.2	8.2	8.2	8.4	8.7	9.3	9.4	9.9
40 ~ 60	7.5	8.1	8.3	8.3	8.3	8.5	8.8	9.4	9.6	10.0
60 ~ 80	7.6	8.2	8.4	8.4	8.5	8.6	9.0	9.6	9.7	10.2
80 ~ 100	7.7	8.3	8.5	8.6	8.6	8.7	9.1	9.8	9.9	10.4
100 ~ 120	7.8	8.5	8.6	8.6	8.6	9.0	9.3	10.0	10.1	10.7
120 ~ 140	7.9	8.5	8.7	8.7	8.7	9.1	9.5	10.2	10.3	11.0
140 ~ 160	8.1	8.7	8.8	8.8	8.8	9.3	9.7	10.4	10.5	11.2

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	370/300
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	342/301

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
9.82E-06	1.23E-08	-1.80E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
5.12E-07	6.03E-10	2.46E-01