

<b>H-LaF54</b>	<b>800423</b>	$n_d = 1.79950$	$v_d = 42.34$	$n_F - n_C = 0.018883$
		$n_e = 1.80399$	$v_e = 42.09$	$n_{F'} - n_{C'} = 0.019101$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	1.75473
$n_{1970}$	1970.09	1.76179
$n_{1530}$	1529.58	1.76966
$n_{1129}$	1128.64	1.77705
$n_{1064}$	1064.00	1.77846
$n_t$	1013.98	1.77963
$n_s$	852.11	1.78432
$n_{A'}$	768.19	1.78763
$n_f$	706.52	1.79073
$n_C$	656.27	1.79388
$n_{C'}$	643.85	1.79476
$n_{He-Ne}$	632.80	1.79559
$n_D$	589.29	1.79934
$n_d$	587.56	1.79950
$n_e$	546.07	1.80399
$n_F$	486.13	1.81276
$n_{F'}$	479.99	1.81386
$n_g$	435.84	1.82345
$n_h$	404.66	1.83254
$n_i$	365.01	1.84858

Relative Partial Dispersion	
$P_{d,C}$	0.2976
$P_{e,d}$	0.2378
$P_{g,F}$	0.5661
$P'_{d,c'}$	0.2482
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.5021

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)	1
CR	

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.811	0.658
2200	0.944	0.891
2000	0.990	0.980
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	0.999	0.998
500	0.999	0.998
480	0.997	0.996
460	0.995	0.994
440	0.993	0.992
420	0.991	0.986
400	0.984	0.973
390	0.978	0.960
380	0.966	0.935
370	0.941	0.890
360	0.900	0.811
350	0.815	0.665
340	0.638	0.408
330	0.316	0.102
320	0.048	0.011
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0072
$\Delta P_{C,t}$	0.0094
$\Delta P_{C,s}$	0.0043

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	47
-40/-30	49
-30/-20	51
-20/-10	53
-10/0	53
0/10	54
10/20	55
20/30	56
30/40	57
40/50	57
50/60	58
60/70	58
70/80	59
80/90	60
90/100	61
100/110	62
110/120	63
120/130	64
130/140	65
140/150	66
150/160	66

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	606
T <sub>s</sub> ( $^{\circ}C$ )	637
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	539
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	580
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	53
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	68
$\lambda$ (W/(m K))	1.30

Constants of Dispersion Formula	
A <sub>0</sub>	3.15463077E+00
A <sub>1</sub>	-1.49142692E-02
A <sub>2</sub>	2.73983671E-02
A <sub>3</sub>	1.30082902E-03
A <sub>4</sub>	-8.39080192E-05
A <sub>5</sub>	6.66808513E-06

Mechanical Properties	
HK ( $10^7 Pa$ )	630
F <sub>A</sub>	84
E (GPa)	114.4
G (GPa)	42.7
$\mu$	0.340
$\sigma_b$ (MPa)	74
B ( $10^{-12}/Pa$ )	2.07

Density	Solarization
$\rho$ (g/cm <sup>3</sup> )	$\Delta\lambda$ (%)
4.40	-1.7

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	6.4	6.9	7.2	7.3	7.3	7.6	7.8	8.5	8.6	9.1
-40 ~ -20	6.6	7.0	7.4	7.4	7.5	7.6	8.1	8.7	8.8	9.4
-20 ~ 0	6.8	7.1	7.7	7.7	7.8	7.8	8.3	9.0	9.1	9.9
0 ~ 20	7.0	7.3	7.8	7.9	8.0	8.1	8.6	9.2	9.3	10.0
20 ~ 40	7.0	7.3	7.9	8.0	8.0	8.2	8.6	9.3	9.4	10.3
40 ~ 60	7.0	7.4	7.9	8.0	8.0	8.3	8.8	9.5	9.5	10.4
60 ~ 80	7.2	7.5	8.0	8.0	8.1	8.6	9.0	9.7	9.8	10.6
80 ~ 100	7.4	7.7	8.1	8.2	8.2	8.8	9.1	10.1	10.1	10.9
100 ~ 120	7.6	7.8	8.2	8.3	8.4	9.0	9.3	10.3	10.3	11.0
120 ~ 140	7.7	8.0	8.4	8.5	8.6	9.2	9.5	10.5	10.5	11.4
140 ~ 160	7.8	8.1	8.5	8.6	8.7	9.3	9.6	10.7	10.8	11.6

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	390/330
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	358/327

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
7.96E-06	1.37E-08	-2.59E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
7.10E-07	8.49E-10	2.31E-01