

<b>H-LaF7</b> <b>782371</b>	$n_d = 1.78179$	$\nu_d = 37.09$	$n_F - n_C = 0.021077$
	$n_e = 1.78679$	$\nu_e = 36.83$	$n_{F'} - n_{C'} = 0.021366$

Refractive Indices		
	$\lambda(\text{nm})$	$n_\lambda$
$n_{2325}$	2325.42	
$n_{1970}$	1970.09	
$n_{1530}$	1529.58	
$n_{1129}$	1128.64	
$n_t$	1013.98	
$n_s$	852.11	
$n_{A'}$	768.19	
$n_r$	706.52	1.77216
$n_C$	656.27	1.77559
$n_{C'}$	643.85	1.77657
$n_{\text{He-Ne}}$	632.80	1.77748
$n_D$	589.29	1.78161
$n_d$	587.56	1.78179
$n_e$	546.07	1.78679
$n_F$	486.13	1.79667
$n_{F'}$	479.99	1.79793
$n_g$	435.84	1.80891
$n_h$	404.66	1.81950
$n_i$	365.01	1.83870

Constants of Dispersion Formula	
$A_0$	3.07986930E+00
$A_1$	-1.20988230E-02
$A_2$	3.13371890E-02
$A_3$	9.85836880E-04
$A_4$	-1.33798640E-05
$A_5$	5.49907620E-06

Relative Partial Dispersions			
$P_{d,C}$	0.2941	$P'_{d,C'}$	0.2444
$P_{e,d}$	0.2372	$P'_{e,d}$	0.2341
$P_{g,F}$	0.5806	$P'_{g,F'}$	0.5140

Range of Temperature (°C)	Temperature Coefficients of Refractive Index						
	dn/dt relative (10 <sup>-6</sup> / °C)						
	t	C'	He-Ne	D	e	F'	g
-40 ~ -20	3.2	4.0	4.0	4.3	4.6	5.4	6.2
-20 ~ 0	3.3	4.0	4.1	4.3	4.7	5.5	6.4
0 ~ 20	3.3	4.1	4.1	4.4	4.7	5.6	6.5
20 ~ 40	3.2	4.1	4.2	4.4	4.8	5.7	6.6
40 ~ 60	3.3	4.2	4.3	4.6	5.0	5.9	6.9
60 ~ 80	3.5	4.4	4.5	4.8	5.2	6.1	7.1

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

Thermal Properties	
T <sub>g</sub> (°C)	643
T <sub>s</sub> (°C)	708
T <sub>10</sub> <sup>14.5</sup> (°C)	581
T <sub>10</sub> <sup>13</sup> (°C)	623
$\alpha_{-50/80^\circ\text{C}}$ (10 <sup>-7</sup> /K)	72
$\alpha_{100/300^\circ\text{C}}$ (10 <sup>-7</sup> /K)	82

Mechanical Properties	
HK(10 <sup>7</sup> Pa)	566
F <sub>A</sub>	151
E(10 <sup>7</sup> Pa)	11906
G(10 <sup>7</sup> Pa)	4611
$\mu$	0.291
B(nm/cm/10 <sup>5</sup> Pa)	2.310

Density	
$\rho$ (g/cm <sup>3</sup> )	4.13

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0010
$\Delta P_{g,F}$	-0.0013
$\Delta P_{C,t}$	
$\Delta P_{C,s}$	

Internal Transmittance		
$\lambda(\text{nm})$	$\tau_{5\text{mm}}$	$\tau_{10\text{mm}}$
2400	0.939	0.882
2200	0.980	0.960
2000	0.997	0.994
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	0.997	0.994
500	0.997	0.994
480	0.995	0.990
460	0.989	0.978
440	0.981	0.962
420	0.967	0.935
400	0.935	0.874
390	0.906	0.821
380	0.848	0.719
370	0.744	0.554
360	0.582	0.339
350	0.329	0.108
340		
330		
320		
310		
300		
290		
280		

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	420/350

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