

H-LaF7	782371	$n_d = 1.78179$	$v_d = 37.09$	$n_F - n_C = 0.021077$
		$n_e = 1.78679$	$v_e = 36.83$	$n_{F'} - n_{C'} = 0.021366$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.73781
n_{1970}	1970.09	1.74384
n_{1530}	1529.58	1.75079
n_{1129}	1128.64	1.75779
n_{1064}	1064.00	1.75919
n_t	1013.98	1.76038
n_s	852.11	1.76527
$n_{A'}$	768.19	1.76881
n_r	706.52	1.77216
n_C	656.27	1.77559
$n_{C'}$	643.85	1.77657
n_{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	1.80893
n_h	404.66	1.81955
n_i	365.01	1.83869

Constants of Dispersion Formula	
A_0	3.08047013E+00
A_1	-1.22464411E-02
A_2	3.09400964E-02
A_3	1.05872727E-03
A_4	-1.30807247E-05
A_5	4.91706463E-06

Density	
ρ (g/cm ³)	4.13

Solarization	
$\Delta\lambda$ (%)	-0.6

Relative Partial Dispersion	
$P_{d,C}$	0.2942
$P_{e,d}$	0.2372
$P_{g,F}$	0.5817
$P'_{d,c'}$	0.2443
$P'_{e,d}$	0.2340
$P'_{g,F'}$	0.5148

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0010
$\Delta P_{g,F}$	-0.0003
$\Delta P_{C,t}$	0.0018
$\Delta P_{C,s}$	0.0002

Thermal Properties	
Tg (°C)	661
Ts (°C)	685
T ₁₀ ^{14.5} (°C)	581
T ₁₀ ¹³ (°C)	623
$\alpha_{50/80^\circ C}$ (10 ⁻⁷ /K)	67
$\alpha_{100/300^\circ C}$ (10 ⁻⁷ /K)	82
λ (W/(m·K))	0.97

Mechanical Properties	
HK (10 ⁷ Pa)	566
F _A	151
E (GPa)	119.1
G (GPa)	46.1
μ	0.291
σ_b (MPa)	
B (10 ⁻¹² /Pa)	1.94

Chemical Properties (grade)	
RC (S)	1
RA (S)	1
D _W	1
D _A	1
R _{OH} (S)	1
RP (S)	1

Expansion Coefficient α (×10 ⁻⁷ /K)	
°C	α
-50/-40	54
-40/-30	58
-30/-20	61
-20/-10	63
-10/0	65
0/10	67
10/20	69
20/30	70
30/40	71
40/50	72
50/60	72
60/70	73
70/80	73
80/90	74
90/100	75
100/110	76
110/120	76
120/130	77
130/140	78
140/150	80
150/160	81

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
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
950	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	
$\lambda\tau_{80}/\lambda\tau_5$	384/346

Range of Temperature (°C)	Temperature Coefficients of Refractive Index									
	dn/dt relative (×10 ⁻⁶ / °C)									
	t	s	C	C'	He-Ne	d	e	F	F'	g
-60 ~ -40	3.1	3.6	4.0	4.0	4.0	4.2	4.6	5.3	5.4	6.0
-40 ~ -20	3.1	3.6	4.0	4.0	4.0	4.3	4.7	5.3	5.4	6.3
-20 ~ 0	3.2	3.7	4.0	4.1	4.1	4.3	4.7	5.4	5.5	6.3
0 ~ 20	3.2	3.7	4.1	4.1	4.1	4.4	4.7	5.5	5.6	6.4
20 ~ 40	3.3	3.8	4.1	4.1	4.2	4.4	4.8	5.6	5.7	6.5
40 ~ 60	3.4	3.8	4.2	4.2	4.4	4.5	5.0	5.8	5.9	6.9
60 ~ 80	3.6	4.0	4.3	4.4	4.5	4.8	5.1	6.0	6.1	7.1
80 ~ 100	3.7	4.1	4.4	4.5	4.6	4.9	5.3	6.3	6.4	7.1
100 ~ 120	3.9	4.3	4.6	4.6	4.7	5.0	5.5	6.4	6.5	7.3
120 ~ 140	4.2	4.5	4.7	4.7	4.8	5.2	5.6	6.5	6.6	7.6
140 ~ 160	4.3	4.6	4.8	4.8	4.9	5.3	5.7	6.6	6.7	8.0

Constants of dn/dt		
D ₀	D ₁	D ₂
2.32E-06	1.27E-08	-1.60E-11
E ₀	E ₁	λ_{TK}
5.87E-07	4.07E-10	2.86E-01