

<b>H-ZLaF86</b>	<b>883270</b>	$n_d = 1.88252$	$v_d = 27.00$	$n_F - n_C = 0.032686$
		$n_e = 1.89022$	$v_e = 26.78$	$n_{F'} - n_{C'} = 0.033246$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	1.82367
$n_{1970}$	1970.09	1.83046
$n_{1530}$	1529.58	1.83859
$n_{1129}$	1128.64	1.84749
$n_{1064}$	1064.00	1.84939
$n_t$	1013.98	1.85103
$n_s$	852.11	1.85790
$n_{A'}$	768.19	1.86304
$n_f$	706.52	1.86800
$n_C$	656.27	1.87312
$n_{C'}$	643.85	1.87457
$n_{He-Ne}$	632.80	1.87595
$n_D$	589.29	1.88223
$n_d$	587.56	1.88252
$n_e$	546.07	1.89022
$n_F$	486.13	1.90581
$n_{F'}$	479.99	1.90782
$n_g$	435.84	1.92583
$n_h$	404.66	1.94392
$n_i$	365.01	1.97855

Relative Partial Dispersion	
$P_{d,C}$	0.2876
$P_{e,d}$	0.2356
$P_{g,F}$	0.6125
$P'_{d,c'}$	0.2391
$P'_{e,d}$	0.2316
$P'_{g,F'}$	0.5417

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)	2
CR	

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.969	0.938
2200	0.987	0.975
2000	0.995	0.991
1800	0.998	0.997
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	0.998	0.997
650	0.998	0.997
600	0.997	0.995
550	0.993	0.987
500	0.982	0.965
480	0.975	0.950
460	0.964	0.929
440	0.944	0.891
420	0.902	0.813
400	0.804	0.647
390	0.701	0.491
380	0.512	0.262
370	0.230	0.053
360		
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0017
$\Delta P_{g,F}$	0.0137
$\Delta P_{C,t}$	0.0049
$\Delta P_{C,s}$	0.0004

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	60
-40/-30	63
-30/-20	63
-20/-10	65
-10/0	68
0/10	69
10/20	70
20/30	73
30/40	74
40/50	75
50/60	75
60/70	75
70/80	76
80/90	76
90/100	76
100/110	77
110/120	78
120/130	79
130/140	80
140/150	81
150/160	83

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	717
T <sub>s</sub> ( $^{\circ}C$ )	762
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	678
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	709
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	70
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	83
$\lambda$ (W/(m K))	1.13

Constants of Dispersion Formula	
A <sub>0</sub>	3.39234287E+00
A <sub>1</sub>	-1.39491556E-02
A <sub>2</sub>	4.74887284E-02
A <sub>3</sub>	2.28412158E-03
A <sub>4</sub>	-8.32791862E-05
A <sub>5</sub>	2.34034525E-05

Mechanical Properties	
HK ( $10^7$ Pa)	608
F <sub>A</sub>	94
E (GPa)	112.2
G (GPa)	43.3
$\mu$	0.294
$\sigma_b$ (MPa)	97
B ( $10^{-12}$ /Pa)	1.66

Density		Solarization	
$\rho$ (g/cm <sup>3</sup> )	4.05	$\Delta\lambda$ (%)	-0.7

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	1.2	1.8	2.1	2.1	2.2	2.4	3.2	4.3	4.5	6.4
-40 ~ -20	1.3	1.9	2.2	2.3	2.4	2.6	3.4	4.5	4.7	6.6
-20 ~ 0	1.4	2.1	2.3	2.5	2.6	2.8	3.5	4.6	4.8	6.7
0 ~ 20	1.6	2.3	2.5	2.6	2.7	3.1	3.7	4.8	4.9	6.9
20 ~ 40	1.8	2.5	2.8	2.9	2.9	3.2	3.8	5.0	5.1	7.1
40 ~ 60	2.0	2.6	2.9	3.0	3.0	3.4	4.1	5.1	5.3	7.3
60 ~ 80	2.1	2.8	3.2	3.3	3.3	3.5	4.3	5.2	5.4	7.6
80 ~ 100	2.3	3.0	3.3	3.4	3.4	3.6	4.5	5.4	5.5	7.7
100 ~ 120	2.3	3.1	3.5	3.6	3.6	3.9	4.6	5.5	5.6	7.9
120 ~ 140	2.4	3.2	3.7	3.8	3.9	4.1	4.7	5.6	5.7	8.2
140 ~ 160	2.5	3.3	3.8	3.9	4.0	4.3	4.9	5.9	6.0	8.4

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	(430)/370
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	418/370

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
-4.29E-07	1.62E-08	-2.51E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
5.81E-07	5.62E-12	3.40E-01