

<b>H-ZLaF55F</b>	<b>835427</b>	$n_d = 1.83481$	$v_d = 42.72$	$n_F - n_C = 0.019541$
		$n_e = 1.83944$	$v_e = 42.49$	$n_{F'} - n_{C'} = 0.019757$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	1.79048
$n_{1970}$	1970.09	1.79707
$n_{1530}$	1529.58	1.80452
$n_{1129}$	1128.64	1.81175
$n_{1064}$	1064.00	1.81316
$n_t$	1013.98	1.81435
$n_s$	852.11	1.81912
$n_{A'}$	768.19	1.82253
$n_f$	706.52	1.82573
$n_C$	656.27	1.82897
$n_{C'}$	643.85	1.82989
$n_{He-Ne}$	632.80	1.83076
$n_D$	589.29	1.83463
$n_d$	587.56	1.83481
$n_e$	546.07	1.83944
$n_F$	486.13	1.84851
$n_{F'}$	479.99	1.84965
$n_g$	435.84	1.85955
$n_h$	404.66	1.86893
$n_i$	365.01	1.88543

Relative Partial Dispersion	
$P_{d,C}$	0.2989
$P_{e,d}$	0.2369
$P_{g,F}$	0.5650
$P'_{d,c'}$	0.2490
$P'_{e,d}$	0.2343
$P'_{g,f'}$	0.5011

Chemical Properties (grade)	
RC (S)	1
RA (S)	1
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	0.903	0.808
2200	0.979	0.954
2000	0.993	0.985
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	0.994
460	0.995	0.990
440	0.992	0.984
420	0.987	0.974
400	0.978	0.957
390	0.969	0.939
380	0.956	0.913
370	0.934	0.866
360	0.897	0.801
350	0.829	0.681
340	0.726	0.522
330	0.544	0.290
320	0.250	0.065
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0025
$\Delta P_{g,F}$	-0.0077
$\Delta P_{C,t}$	0.0010
$\Delta P_{C,s}$	0.0011

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	60
-40/-30	62
-30/-20	64
-20/-10	65
-10/0	66
0/10	67
10/20	68
20/30	69
30/40	70
40/50	71
50/60	71
60/70	72
70/80	72
80/90	73
90/100	74
100/110	75
110/120	76
120/130	77
130/140	79
140/150	80
150/160	81

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	711
T <sub>s</sub> ( $^{\circ}C$ )	739
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	640
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	687
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	68
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	84
$\lambda$ (W/(m K))	0.88

Constants of Dispersion Formula	
A <sub>0</sub>	3.27602602E+00
A <sub>1</sub>	-1.40174355E-02
A <sub>2</sub>	3.01024097E-02
A <sub>3</sub>	1.06953465E-03
A <sub>4</sub>	-5.08713944E-05
A <sub>5</sub>	5.04484426E-06

Mechanical Properties	
HK ( $10^7$ Pa)	679
F <sub>A</sub>	69
E (GPa)	121.8
G (GPa)	45.1
$\mu$	0.349
$\sigma_b$ (MPa)	69
B ( $10^{-12}$ /Pa)	1.23

Density		Solarization	
$\rho$ (g/cm <sup>3</sup> )	4.66	$\Delta\lambda$ (%)	-0.4

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	2.8	3.2	3.6	3.6	3.6	3.8	4.2	4.9	5.0	5.4
-40 ~ -20	2.8	3.3	3.6	3.6	3.7	3.8	4.2	4.9	5.0	5.5
-20 ~ 0	2.8	3.3	3.6	3.7	3.7	3.9	4.3	4.9	5.0	5.5
0 ~ 20	2.7	3.3	3.7	3.7	3.7	3.9	4.3	5.0	5.0	5.6
20 ~ 40	2.7	3.2	3.7	3.7	3.7	3.9	4.3	5.0	5.0	5.6
40 ~ 60	2.7	3.3	3.7	3.7	3.7	3.9	4.3	5.0	5.1	5.7
60 ~ 80	2.8	3.4	3.7	3.7	3.8	4.0	4.4	5.2	5.2	6.0
80 ~ 100	2.8	3.4	3.7	3.7	3.8	4.1	4.4	5.2	5.2	6.1
100 ~ 120	3.0	3.5	3.8	3.8	4.0	4.2	4.5	5.3	5.3	6.2
120 ~ 140	3.1	3.6	3.9	4.0	4.1	4.3	4.6	5.5	5.5	6.3
140 ~ 160	3.3	3.7	4.0	4.1	4.2	4.4	4.7	5.7	5.7	6.4

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	390/320
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	359/320

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
1.12E-06	9.87E-09	-1.49E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
6.99E-07	4.22E-10	2.11E-01