

<b>H-ZBaF16A</b>	<b>667484</b>	$n_d = 1.66672$	$v_d = 48.42$	$n_F - n_C = 0.013769$
		$n_e = 1.67000$	$v_e = 48.13$	$n_{F'} - n_{C'} = 0.013920$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	
$n_{1970}$	1970.09	
$n_{1530}$	1529.58	
$n_{1129}$	1128.64	1.65042
$n_{1064}$	1064.00	1.65140
$n_t$	1013.98	1.65223
$n_s$	852.11	1.65560
$n_{A'}$	768.19	1.65802
$n_f$	706.52	1.66030
$n_C$	656.27	1.66260
$n_{C'}$	643.85	1.66325
$n_{He-Ne}$	632.80	1.66385
$n_D$	589.29	1.66660
$n_d$	587.56	1.66672
$n_e$	546.07	1.67000
$n_F$	486.13	1.67637
$n_{F'}$	479.99	1.67717
$n_g$	435.84	1.68408
$n_h$	404.66	1.69056
$n_i$	365.01	1.70179

Relative Partial Dispersion	
$P_{d,C}$	0.2992
$P_{e,d}$	0.2382
$P_{g,F}$	0.5600
$P'_{d,c'}$	0.2493
$P'_{e,d}$	0.2356
$P'_{g,f'}$	0.4964

Chemical Properties (grade)	
RC (S)	1
RA (S)	2
D <sub>w</sub>	1
D <sub>A</sub>	3
R <sub>OH</sub> (S)	1
RP (S)	1
CR	1

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.946	0.895
2200	0.976	0.953
2000	0.987	0.975
1800	0.993	0.986
1600	0.997	0.995
1400	0.998	0.996
1200	0.999	0.997
1060	0.998	0.997
1000	0.998	0.997
950	0.998	0.996
900	0.998	0.996
850	0.997	0.995
800	0.998	0.997
750	0.999	0.997
700	0.998	0.997
650	0.998	0.996
600	0.998	0.996
550	0.998	0.996
500	0.997	0.995
480	0.997	0.993
460	0.996	0.991
440	0.995	0.990
420	0.994	0.989
400	0.987	0.975
390	0.984	0.968
380	0.976	0.952
370	0.924	0.854
360	0.892	0.796
350	0.824	0.679
340	0.682	0.465
330	0.394	0.155
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0008
$\Delta P_{g,F}$	-0.0032
$\Delta P_{C,t}$	-0.0216
$\Delta P_{C,s}$	-0.0082

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	73
-40/-30	75
-30/-20	77
-20/-10	79
-10/0	80
0/10	81
10/20	82
20/30	82
30/40	84
40/50	85
50/60	85
60/70	86
70/80	87
80/90	89
90/100	89
100/110	89
110/120	90
120/130	91
130/140	94
140/150	94
150/160	96

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	626
T <sub>s</sub> ( $^{\circ}C$ )	687
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	561
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	590
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	81
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	98
$\lambda$ (W/(m K))	0.81

Constants of Dispersion Formula	
A <sub>0</sub>	2.71734266E+00
A <sub>1</sub>	-7.93439759E-03
A <sub>2</sub>	2.10245027E-02
A <sub>3</sub>	2.14586811E-04
A <sub>4</sub>	2.86536993E-05
A <sub>5</sub>	-6.94769473E-07

Mechanical Properties	
HK ( $10^7$ Pa)	544
F <sub>A</sub>	247
E (GPa)	92.2
G (GPa)	35.7
$\mu$	0.293
$\sigma_b$ (MPa)	72
B ( $10^{-12}$ /Pa)	1.84

Density	Solarization
$\rho$ (g/cm <sup>3</sup> )	$\Delta\lambda$ (%)
3.63	-0.2

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	1.0	1.2	1.5	1.8	2.1	2.3	2.5	2.6	2.8	3.3
-40 ~ -20	1.0	1.3	1.5	1.8	2.1	2.3	2.6	2.7	2.8	3.3
-20 ~ 0	1.0	1.3	1.5	1.8	2.2	2.3	2.7	2.8	2.8	3.3
0 ~ 20	1.2	1.4	1.6	1.9	2.2	2.4	2.7	2.8	2.9	3.5
20 ~ 40	1.2	1.4	1.5	1.9	2.2	2.5	2.7	2.8	3.0	3.6
40 ~ 60	1.3	1.6	1.6	2.0	2.3	2.6	2.8	2.9	3.1	3.7
60 ~ 80	1.4	1.6	1.7	2.0	2.3	2.7	3.0	3.0	3.1	3.9
80 ~ 100	1.4	1.7	1.8	2.0	2.4	2.8	3.1	3.2	3.2	4.0
100 ~ 120	1.5	1.8	1.9	2.1	2.5	3.0	3.2	3.3	3.4	4.1
120 ~ 140	1.5	1.9	2.0	2.2	2.6	3.2	3.2	3.3	3.5	4.2
140 ~ 160	1.6	2.0	2.2	2.3	2.7	3.3	3.4	3.5	3.6	4.4

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	370/330
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	353/324

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
-1.65E-06	1.28E-08	-1.94E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
9.82E-07	4.78E-10	1.52E-08