

<b>H-BiF200</b>	<b>003193</b>	$n_d = 2.00272$	$v_d = 19.32$	$n_F - n_C = 0.051908$
		$n_e = 2.01489$	$v_e = 19.16$	$n_{F'} - n_{C'} = 0.052967$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	
$n_{1970}$	1970.09	
$n_{1530}$	1529.58	
$n_{1129}$	1128.64	1.95027
$n_{1064}$	1064.00	1.95293
$n_t$	1013.98	1.95525
$n_s$	852.11	1.96520
$n_{A'}$	768.19	1.97282
$n_f$	706.52	1.98028
$n_C$	656.27	1.98811
$n_{C'}$	643.85	1.99036
$n_{He-Ne}$	632.80	1.99250
$n_D$	589.29	2.00228
$n_d$	587.56	2.00272
$n_e$	546.07	2.01489
$n_F$	486.13	2.04002
$n_{F'}$	479.99	2.04333
$n_g$	435.84	2.07334
$n_h$	404.66	2.10453
$n_i$	365.01	

Relative Partial Dispersion	
$P_{d,C}$	0.2815
$P_{e,d}$	0.2345
$P_{g,F}$	0.6419
$P'_{d,c'}$	0.2334
$P'_{e,d}$	0.2298
$P'_{g,F'}$	0.5666

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
CR	1

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.967	0.936
2200	0.983	0.966
2000	0.993	0.987
1800	0.997	0.993
1600	0.998	0.996
1400	0.999	0.997
1200	0.999	0.998
1060	0.998	0.996
1000	0.998	0.995
950	0.997	0.995
900	0.998	0.995
850	0.997	0.994
800	0.997	0.993
750	0.996	0.992
700	0.996	0.991
650	0.994	0.989
600	0.993	0.986
550	0.985	0.970
500	0.961	0.924
480	0.943	0.889
460	0.915	0.838
440	0.857	0.734
420	0.675	0.456
400	0.195	0.038
390		
380		
370		
360		
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0046
$\Delta P_{g,F}$	0.0304
$\Delta P_{C,t}$	-0.0007
$\Delta P_{C,s}$	-0.0054

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	67
-40/-30	69
-30/-20	71
-20/-10	71
-10/0	71
0/10	73
10/20	73
20/30	74
30/40	74
40/50	74
50/60	75
60/70	77
70/80	79
80/90	79
90/100	81
100/110	81
110/120	81
120/130	82
130/140	82
140/150	86
150/160	86

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	519
T <sub>s</sub> ( $^{\circ}C$ )	558
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	496
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	514
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	75
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	91
$\lambda$ (W/(m K))	0.72

Constants of Dispersion Formula	
A <sub>0</sub>	3.77070363E+00
A <sub>1</sub>	-1.89710141E-02
A <sub>2</sub>	6.72915528E-02
A <sub>3</sub>	7.22871114E-03
A <sub>4</sub>	-6.15434682E-04
A <sub>5</sub>	8.70566270E-05

Mechanical Properties	
HK ( $10^7 Pa$ )	403
F <sub>A</sub>	251
E (GPa)	84.8
G (GPa)	33.6
$\mu$	0.263
$\sigma_b$ (MPa)	53
B ( $10^{-12}/Pa$ )	2.11

Density		Solarization	
$\rho$ (g/cm <sup>3</sup> )	5.10	$\Delta\lambda$ (%)	-3.5

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	4.9	5.5	5.6	5.8	6.1	6.4	7.2	10.2	10.6	14.6
-40 ~ -20	5.0	5.5	5.8	6.1	6.2	6.8	7.6	10.6	10.9	15.0
-20 ~ 0	5.1	5.6	6.0	6.2	6.4	7.1	8.2	11.1	11.6	15.7
0 ~ 20	5.3	5.7	6.2	6.5	6.7	7.5	8.6	11.8	12.2	16.5
20 ~ 40	5.5	6.0	6.5	6.7	6.9	7.8	9.0	12.4	12.8	17.5
40 ~ 60	5.7	6.2	6.8	6.9	7.2	8.2	9.3	12.9	13.3	18.5
60 ~ 80	6.0	6.4	7.1	7.3	7.6	8.5	9.8	13.5	14.0	19.4
80 ~ 100	6.0	6.6	7.4	7.6	8.0	8.7	10.5	14.0	14.5	20.3
100 ~ 120	6.2	6.8	7.6	7.8	8.0	9.3	10.8	14.6	15.1	21.0
120 ~ 140	6.3	7.0	7.9	8.1	8.3	9.6	11.3	15.1	15.7	21.9
140 ~ 160	6.4	7.1	8.1	8.3	8.5	9.9	11.5	15.5	16.2	22.6

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	(470)/400
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	446/399

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
3.25E-06	1.38E-08	-2.30E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
1.02E-06	1.47E-09	3.56E-01