

<b>H-ZF76</b>	<b>959175</b>	$n_d = 1.95906$	$v_d = 17.47$	$n_F - n_C = 0.054890$
		$n_e = 1.97189$	$v_e = 17.33$	$n_{F'} - n_{C'} = 0.056091$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	
$n_{1970}$	1970.09	
$n_{1530}$	1529.58	
$n_{1129}$	1128.64	1.90422
$n_{1064}$	1064.00	1.90710
$n_t$	1013.98	1.90958
$n_s$	852.11	1.92000
$n_{A'}$	768.19	1.92789
$n_f$	706.52	1.93562
$n_C$	656.27	1.94375
$n_{C'}$	643.85	1.94611
$n_{He-Ne}$	632.80	1.94834
$n_D$	589.29	1.95860
$n_d$	587.56	1.95906
$n_e$	546.07	1.97189
$n_F$	486.13	1.99865
$n_{F'}$	479.99	2.00220
$n_g$	435.84	2.03469
$n_h$	404.66	2.06909
$n_i$	365.01	

Relative Partial Dispersion	
$P_{d,C}$	0.2789
$P_{e,d}$	0.2337
$P_{g,F}$	0.6566
$P'_{d,c'}$	0.2309
$P'_{e,d}$	0.2287
$P'_{g,f'}$	0.5792

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	

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.976	0.953
2200	0.990	0.980
2000	0.992	0.984
1800	0.996	0.991
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	0.996
650	0.997	0.994
600	0.996	0.992
550	0.988	0.977
500	0.972	0.944
480	0.957	0.917
460	0.936	0.876
440	0.897	0.804
420	0.805	0.648
400	0.370	0.137
390		
380		
370		
360		
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0070
$\Delta P_{g,F}$	0.0420
$\Delta P_{C,t}$	-0.0022
$\Delta P_{C,s}$	-0.0096

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	53
-40/-30	55
-30/-20	56
-20/-10	57
-10/0	58
0/10	58
10/20	59
20/30	60
30/40	62
40/50	62
50/60	62
60/70	62
70/80	65
80/90	65
90/100	65
100/110	67
110/120	67
120/130	68
130/140	70
140/150	70
150/160	70

Thermal Properties	
T <sub>g</sub> ( $^{\circ}C$ )	683
T <sub>s</sub> ( $^{\circ}C$ )	712
T <sub>10</sub> <sup>14.5</sup> ( $^{\circ}C$ )	605
T <sub>10</sub> <sup>13</sup> ( $^{\circ}C$ )	655
$\alpha_{-50/80^{\circ}C}$ ( $10^{-7}/K$ )	59
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	73
$\lambda$ (W/(m K))	

Mechanical Properties	
HK ( $10^7 Pa$ )	494
F <sub>A</sub>	178
E (GPa)	102.9
G (GPa)	41.2
$\mu$	0.249
$\sigma_b$ (MPa)	79
B ( $10^{-12}/Pa$ )	3.58

Constants of Dispersion Formula	
A <sub>0</sub>	3.61187240E+00
A <sub>1</sub>	-2.77611102E-02
A <sub>2</sub>	5.45160847E-02
A <sub>3</sub>	1.18687253E-02
A <sub>4</sub>	-1.30897352E-03
A <sub>5</sub>	1.41185183E-04

Density	Solarization
$\rho$ (g/cm <sup>3</sup> )	$\Delta\lambda$ (%)
3.56	-0.3

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	-0.5	-0.2	0.4	0.5	0.6	1.1	2.0	3.9	4.1	6.8
-40 ~ -20	-0.4	-0.2	0.5	0.6	0.7	1.2	2.4	4.2	4.4	7.1
-20 ~ 0	-0.2	-0.1	0.7	0.9	1.0	1.4	2.7	4.6	4.7	7.7
0 ~ 20	0.1	0.0	0.9	1.1	1.2	1.8	3.1	4.9	5.0	8.2
20 ~ 40	0.1	0.2	1.1	1.3	1.4	2.0	3.3	5.2	5.3	8.5
40 ~ 60	0.2	0.4	1.2	1.4	1.5	2.4	3.4	5.4	5.6	9.1
60 ~ 80	0.6	0.8	1.4	1.6	1.8	2.7	3.8	5.7	5.9	9.6
80 ~ 100	0.8	1.3	1.6	1.9	2.1	3.0	4.2	6.0	6.3	10.0
100 ~ 120	0.9	1.5	1.9	2.1	2.5	3.1	4.3	6.5	6.8	10.5
120 ~ 140	1.0	1.7	2.0	2.3	2.6	3.4	4.5	6.8	7.2	10.9
140 ~ 160	1.1	1.7	2.2	2.5	2.7	3.6	4.7	7.1	7.5	11.3

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	(460)/395
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	438/397

Constants of dn/dt		
D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
-3.83E-06	1.49E-08	-2.21E-11
E <sub>0</sub>	E <sub>1</sub>	$\lambda_{TK}$
9.49E-07	6.87E-10	3.36E-01