

H-ZF1B	648338	$n_d = 1.64769$	$v_d = 33.84$	$n_F - n_C = 0.019140$
		$n_e = 1.65222$	$v_e = 33.58$	$n_F - n_C = 0.019421$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	
n_{1970}	1970.09	
n_{1530}	1529.58	
n_{1129}	1128.64	1.62568
n_{1064}	1064.00	1.62715
n_t	1013.98	1.62838
n_s	852.11	1.63289
$n_{A'}$	768.19	1.63608
n_f	706.52	1.63905
n_C	656.27	1.64209
$n_{C'}$	643.85	1.64298
n_{He-Ne}	632.80	1.64382
n_D	589.29	1.64754
n_d	587.56	1.64769
n_e	546.07	1.65222
n_F	486.13	1.66124
$n_{F'}$	479.99	1.66240
n_g	435.84	1.67254
n_h	404.66	1.68252
n_i	365.01	1.70116

Relative Partial Dispersion	
$P_{d,C}$	0.2926
$P_{e,d}$	0.2367
$P_{g,F}$	0.5904
$P'_{d,c'}$	0.2425
$P'_{e,d}$	0.2333
$P'_{g,F'}$	0.5221

Chemical Properties (grade)	
RC (S)	1
RA (S)	1
D _w	1
D _A	1
R _{OH} (S)	1
RP (S)	1
CR	

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.930	0.865
2200	0.944	0.891
2000	0.976	0.953
1800	0.985	0.971
1600	0.995	0.991
1400	0.996	0.993
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	0.998	0.997
500	0.998	0.996
480	0.997	0.995
460	0.996	0.993
440	0.995	0.990
420	0.992	0.985
400	0.980	0.961
390	0.959	0.920
380	0.898	0.807
370	0.726	0.527
360	0.367	0.135
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	0.0030
$\Delta P_{C,t}$	0.0122
$\Delta P_{C,s}$	-0.0009

Expansion Coefficient α ($\times 10^{-7}/K$)	
$^{\circ}C$	α
-50/-40	76
-40/-30	78
-30/-20	79
-20/-10	80
-10/0	81
0/10	82
10/20	85
20/30	87
30/40	88
40/50	89
50/60	91
60/70	91
70/80	92
80/90	94
90/100	94
100/110	97
110/120	98
120/130	100
130/140	102
140/150	102
150/160	104

Thermal Properties	
T _g ($^{\circ}C$)	580
T _s ($^{\circ}C$)	621
T ₁₀ ^{14.5} ($^{\circ}C$)	527
T ₁₀ ¹³ ($^{\circ}C$)	541
$\alpha_{-50/80^{\circ}C}$ ($10^{-7}/K$)	85
$\alpha_{100/300^{\circ}C}$ ($10^{-7}/K$)	107
λ (W/(m K))	1.11

Constants of Dispersion Formula	
A ₀	2.65337691E+00
A ₁	-1.90021227E-02
A ₂	1.44298518E-02
A ₃	4.25529366E-03
A ₄	-4.77918162E-04
A ₅	3.06145958E-05

Mechanical Properties	
HK (10^7 Pa)	538
F _A	132
E (GPa)	82.0
G (GPa)	32.8
μ	0.252
σ_b (MPa)	81
B (10^{-12} /Pa)	2.79

Density	Solarization
ρ (g/cm ³)	$\Delta\lambda$ (%)
2.77	-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	0.2	0.4	0.8	1.0	1.1	1.5	1.7	2.0	2.2	2.8
-40 ~ -20	0.4	0.6	0.9	1.2	1.3	1.7	1.8	2.2	2.3	3.0
-20 ~ 0	0.5	0.7	1.1	1.3	1.5	1.9	2.1	2.3	2.4	3.4
0 ~ 20	0.6	0.9	1.3	1.4	1.6	2.1	2.3	2.5	2.5	3.6
20 ~ 40	0.8	1.1	1.5	1.5	1.7	2.2	2.5	2.5	2.6	3.9
40 ~ 60	0.9	1.2	1.6	1.6	1.8	2.4	2.7	2.7	2.9	4.1
60 ~ 80	0.9	1.4	1.7	1.8	2.0	2.5	2.8	2.9	3.1	4.3
80 ~ 100	0.9	1.5	1.8	1.9	2.1	2.6	3.0	3.0	3.2	4.5
100 ~ 120	0.9	1.6	1.8	1.9	2.2	2.7	3.0	3.1	3.3	4.7
120 ~ 140	1.0	1.6	2.0	2.1	2.3	2.8	3.1	3.2	3.4	5.1
140 ~ 160	1.0	1.7	2.1	2.2	2.4	3.0	3.2	3.3	3.5	5.3

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	390/360
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	379/356

Constants of dn/dt		
D ₀	D ₁	D ₂
-2.51E-06	1.55E-08	-3.44E-11
E ₀	E ₁	λ_{TK}
9.45E-07	8.73E-10	1.94E-01