

H-ZF13	785257	$n_d = 1.78472$	$v_d = 25.72$	$n_F - n_C = 0.030510$
		$n_e = 1.79191$	$v_e = 25.51$	$n_{F'} - n_{C'} = 0.031042$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.73037
n_{1970}	1970.09	1.73662
n_{1530}	1529.58	1.74411
n_{1129}	1128.64	1.75231
n_{1064}	1064.00	1.75406
n_t	1013.98	1.75557
n_s	852.11	1.76192
$n_{A'}$	768.19	1.76666
n_r	706.52	1.77124
n_C	656.27	1.77597
$n_{C'}$	643.85	1.77733
n_{He-Ne}	632.80	1.77861
n_D	589.29	1.78446
n_d	587.56	1.78472
n_e	546.07	1.79191
n_F	486.13	1.80648
$n_{F'}$	479.99	1.80837
n_g	435.84	1.82522
n_h	404.66	1.84210
n_i	365.01	1.87399

Constants of Dispersion Formula	
A_0	3.05227481E+00
A_1	-1.21808741E-02
A_2	4.16791281E-02
A_3	1.79932930E-03
A_4	1.91659600E-05
A_5	1.22563456E-05

Density		Solarization	
ρ (g/cm ³)	3.22	$\Delta\lambda$ (%)	-0.9

Relative Partial Dispersion	
$P_{d,C}$	0.2868
$P_{e,d}$	0.2357
$P_{g,F}$	0.6142
$P'_{d,c'}$	0.2381
$P'_{e,d}$	0.2316
$P'_{g,F'}$	0.5428

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0015
$\Delta P_{g,F}$	0.0133
$\Delta P_{C,t}$	0.0039
$\Delta P_{C,s}$	-0.0016

Thermal Properties	
T _g (°C)	601
T _s (°C)	627
T ₁₀ ^{14.5} (°C)	535
T ₁₀ ¹³ (°C)	573
$\alpha_{50/80^\circ C}$ (10 ⁻⁷ /K)	91
$\alpha_{100/300^\circ C}$ (10 ⁻⁷ /K)	111
λ (W/(m·K))	0.98

Mechanical Properties	
HK (10 ⁷ Pa)	528
F _A	181
E (GPa)	91.5
G (GPa)	35.7
μ	0.281
σ_b (MPa)	70.2
B (10 ⁻¹² /Pa)	2.73

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

Expansion Coefficient α (×10 ⁻⁷ /K)	
°C	α
-50/-40	81
-40/-30	84
-30/-20	86
-20/-10	88
-10/0	90
0/10	91
10/20	92
20/30	93
30/40	94
40/50	95
50/60	95
60/70	96
70/80	97
80/90	98
90/100	98
100/110	100
110/120	101
120/130	102
130/140	103
140/150	105
150/160	106

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.950	0.900
2200	0.976	0.950
2000	0.987	0.972
1800	0.993	0.984
1600	0.998	0.996
1400	0.998	0.996
1200	0.998	0.996
1060	0.998	0.996
1000	0.998	0.996
950	0.998	0.996
900	0.998	0.996
850	0.998	0.996
800	0.998	0.996
750	0.998	0.996
700	0.998	0.996
650	0.998	0.996
600	0.998	0.996
550	0.996	0.992
500	0.994	0.988
480	0.990	0.980
460	0.984	0.968
440	0.976	0.953
420	0.962	0.925
400	0.907	0.819
390	0.812	0.658
380	0.640	0.407
370	0.308	0.095
360		
350		
340		
330		
320		
310		
300		
290		
280		

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	425/365
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	393/365

Range of Temperature (°C)	Temperature Coefficients of Refractive Index									
	dn/dt relative (×10 ⁻⁶ / °C)									
	t	s	C	C'	He-Ne	d	e	F	F'	g
-60 ~ -40	-0.8	-0.1	0.4	0.4	0.5	0.8	1.3	2.4	2.5	3.7
-40 ~ -20	-0.7	0.0	0.4	0.4	0.6	0.8	1.3	2.5	2.6	3.9
-20 ~ 0	-0.7	0.0	0.5	0.5	0.6	1.0	1.4	2.7	2.8	4.3
0 ~ 20	-0.6	0.1	0.6	0.6	0.7	1.1	1.6	3.0	3.1	4.8
20 ~ 40	-0.6	0.2	0.7	0.7	0.8	1.2	1.9	3.2	3.2	5.1
40 ~ 60	-0.5	0.3	0.8	0.8	0.9	1.3	2.0	3.4	3.4	5.3
60 ~ 80	-0.5	0.4	0.9	0.9	1.0	1.5	2.2	3.6	3.7	5.7
80 ~ 100	-0.3	0.5	1.0	1.0	1.1	1.7	2.3	3.9	4.0	6.0
100 ~ 120	-0.2	0.6	1.1	1.2	1.2	2.0	2.4	4.2	4.3	6.3
120 ~ 140	0.0	0.7	1.2	1.3	1.3	2.1	2.7	4.4	4.5	6.5
140 ~ 160	0.0	0.8	1.3	1.4	1.5	2.2	2.9	4.6	4.7	6.7

Constants of dn/dt		
D ₀	D ₁	D ₂
-4.52E-06	1.15E-08	-2.19E-11
E ₀	E ₁	λ_{TK}
9.64E-07	1.10E-09	2.96E-01