

H-ZF7LGT 805255	$n_d = 1.80518$	$v_d = 25.46$	$n_F - n_C = 0.031630$
	$n_e = 1.81263$	$v_e = 25.25$	$n_{F'} - n_{C'} = 0.032180$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.74928
n_{1970}	1970.09	1.75560
n_{1530}	1529.58	1.76321
n_{1129}	1128.64	1.77158
n_{1064}	1064.00	1.77339
n_t	1013.98	1.77494
n_s	852.11	1.78150
$n_{A'}$	768.19	1.78642
n_r	706.52	1.79118
n_C	656.27	1.79611
$n_{C'}$	643.85	1.79752
n_{He-Ne}	632.80	1.79883
n_D	589.29	1.80491
n_d	587.56	1.80518
n_e	546.07	1.81263
n_F	486.13	1.82774
$n_{F'}$	479.99	1.82970
n_g	435.84	1.84721
n_h	404.66	1.86480
n_i	365.01	1.89846

Constants of Dispersion Formula	
A_0	3.11898504E+00
A_1	-1.24052596E-02
A_2	4.32862244E-02
A_3	2.26049835E-03
A_4	-7.69462999E-05
A_5	2.11453139E-05

Density	
ρ (g/cm ³)	3.38

Solarization	
$\Delta\lambda$ (%)	-0.6

Relative Partial Dispersion	
$P_{d,C}$	0.2868
$P_{e,d}$	0.2355
$P_{g,F}$	0.6156
$P'_{d,c'}$	0.2380
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5441

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0016
$\Delta P_{g,F}$	0.0142
$\Delta P_{C,t}$	0.0058
$\Delta P_{C,s}$	0.0004

Thermal Properties	
T _g (°C)	606
T _s (°C)	636
T ₁₀ ^{14.5} (°C)	565
T ₁₀ ¹³ (°C)	581
$\alpha_{50/80^\circ C}$ (10 ⁻⁷ /K)	88
$\alpha_{100/300^\circ C}$ (10 ⁻⁷ /K)	109
λ (W/(m·K))	0.99

Mechanical Properties	
HK (10 ⁷ Pa)	523
F _A	186
E (GPa)	93.6
G (GPa)	36.1
μ	0.296
σ_b (MPa)	77.2
B (10 ⁻¹² /Pa)	2.67

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	80
-40/-30	82
-30/-20	85
-20/-10	87
-10/0	89
0/10	90
10/20	91
20/30	92
30/40	92
40/50	93
50/60	93
60/70	94
70/80	95
80/90	95
90/100	97
100/110	98
110/120	99
120/130	100
130/140	102
140/150	102
150/160	103

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.951	0.905
2200	0.974	0.949
2000	0.990	0.980
1800	0.998	0.996
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	0.993
500	0.994	0.988
480	0.992	0.983
460	0.990	0.980
440	0.987	0.971
420	0.977	0.953
400	0.952	0.904
390	0.913	0.830
380	0.815	0.669
370	0.548	0.301
360	0.157	0.025
350		
340		
330		
320		
310		
300		
290		
280		

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	420/365
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	387/361

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	-0.2	0.2	0.3	0.4	0.6	1.2	2.4	2.5	3.7
-40 ~ -20	-0.8	-0.1	0.3	0.4	0.4	0.7	1.3	2.5	2.6	4.0
-20 ~ 0	-0.8	-0.1	0.3	0.4	0.5	0.8	1.4	2.6	2.7	4.3
0 ~ 20	-0.8	-0.1	0.3	0.4	0.5	0.9	1.5	2.9	3.0	4.7
20 ~ 40	-0.8	-0.1	0.4	0.5	0.6	1.0	1.6	3.0	3.1	5.0
40 ~ 60	-0.7	0.1	0.5	0.6	0.7	1.1	1.8	3.3	3.4	5.3
60 ~ 80	-0.7	0.1	0.7	0.8	0.9	1.3	2.0	3.6	3.7	5.7
80 ~ 100	-0.6	0.2	0.9	1.0	1.1	1.5	2.1	3.8	3.9	5.9
100 ~ 120	-0.4	0.3	1.0	1.1	1.2	1.7	2.3	4.0	4.1	6.1
120 ~ 140	-0.3	0.4	1.1	1.2	1.3	1.8	2.4	4.2	4.3	6.4
140 ~ 160	-0.2	0.5	1.2	1.3	1.4	2.0	2.6	4.5	4.6	6.7

Constants of dn/dt		
D ₀	D ₁	D ₂
-4.83E-06	1.06E-08	-1.80E-11
E ₀	E ₁	λ_{TK}
9.79E-07	1.08E-09	2.95E-01