

H-ZK11	639555	$n_d = 1.63854$	$v_d = 55.45$	$n_F - n_C = 0.011516$
		$n_e = 1.64129$	$v_e = 55.18$	$n_{F'} - n_{C'} = 0.011621$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.60803
n_{1970}	1970.09	1.61325
n_{1530}	1529.58	1.61900
n_{1129}	1128.64	1.62419
n_{1064}	1064.00	1.62514
n_t	1013.98	1.62593
n_s	852.11	1.62900
$n_{A'}$	768.19	1.63114
n_r	706.52	1.63310
n_C	656.27	1.63505
$n_{C'}$	643.85	1.63561
n_{He-Ne}	632.80	1.63613
n_D	589.29	1.63844
n_d	587.56	1.63854
n_e	546.07	1.64129
n_F	486.13	1.64657
$n_{F'}$	479.99	1.64723
n_g	435.84	1.65291
n_h	404.66	1.65819
n_i	365.01	1.66725

Constants of Dispersion Formula	
A_0	2.63821944E+00
A_1	-1.02473310E-02
A_2	1.58983043E-02
A_3	5.77973503E-04
A_4	-3.90220391E-05
A_5	2.35832993E-06

Density		Solarization	
ρ (g/cm ³)	3.67	$\Delta\lambda$ (%)	-0.5

Relative Partial Dispersion	
$P_{d,C}$	0.3031
$P_{e,d}$	0.2388
$P_{g,F}$	0.5505
$P'_{d,c'}$	0.2521
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4888

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0011
$\Delta P_{g,F}$	-0.0010
$\Delta P_{C,t}$	-0.0169
$\Delta P_{C,s}$	-0.0081

Thermal Properties	
T _g (°C)	649
T _s (°C)	685
T ₁₀ ^{14.5} (°C)	591
T ₁₀ ¹³ (°C)	624
$\alpha_{-50/80^\circ C}$ (10 ⁻⁷ /K)	71
$\alpha_{100/300^\circ C}$ (10 ⁻⁷ /K)	85
λ (W/(m·K))	1.03

Mechanical Properties	
HK (10 ⁷ Pa)	510
F _A	160
E (GPa)	86.2
G (GPa)	33.0
μ	0.307
σ_b (MPa)	52.6
B (10 ⁻¹² /Pa)	1.69

Chemical Properties (grade)	
RC (S)	1
RA (S)	2
D _W	1
D _A	3
R _{OH} (S)	2
RP (S)	2

Expansion Coefficient α (×10 ⁻⁷ /K)	
°C	α
-50/-40	63
-40/-30	67
-30/-20	68
-20/-10	70
-10/0	72
0/10	73
10/20	73
20/30	73
30/40	74
40/50	74
50/60	75
60/70	75
70/80	76
80/90	77
90/100	78
100/110	78
110/120	79
120/130	80
130/140	81
140/150	82
150/160	83

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.903	0.815
2200	0.950	0.903
2000	0.987	0.974
1800	0.994	0.989
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	0.999	0.998
650	0.999	0.998
600	0.999	0.998
550	0.999	0.998
500	0.999	0.998
480	0.999	0.998
460	0.999	0.998
440	0.999	0.998
420	0.997	0.994
400	0.995	0.990
390	0.993	0.985
380	0.991	0.979
370	0.985	0.968
360	0.970	0.940
350	0.944	0.892
340	0.895	0.801
330	0.799	0.639
320	0.622	0.388
310	0.348	0.123
300		
290		
280		

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	350/305
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	340/305

Constants of dn/dt		
D ₀	D ₁	D ₂
-8.12E-07	1.25E-08	-2.55E-11
E ₀	E ₁	λ_{TK}
5.57E-07	2.06E-10	1.96E-01

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	1.3	1.5	1.7	1.8	1.9	1.9	2.1	2.3	2.5	2.9
-40 ~ -20	1.3	1.5	1.7	1.8	1.9	2.0	2.2	2.5	2.7	2.9
-20 ~ 0	1.3	1.5	1.7	1.8	2.0	2.0	2.3	2.6	2.7	2.9
0 ~ 20	1.3	1.5	1.7	1.8	2.0	2.0	2.4	2.7	2.8	3.0
20 ~ 40	1.3	1.5	1.8	1.9	2.0	2.0	2.4	2.7	2.8	3.1
40 ~ 60	1.5	1.7	1.7	1.9	2.0	2.1	2.4	2.7	2.8	3.1
60 ~ 80	1.5	1.8	1.8	1.9	2.0	2.2	2.4	2.7	2.8	3.1
80 ~ 100	1.5	1.9	1.9	1.9	2.0	2.2	2.5	2.8	2.9	3.3
100 ~ 120	1.6	1.9	1.9	1.9	2.0	2.2	2.7	2.9	3.0	3.4
120 ~ 140	1.8	1.9	1.9	2.0	2.1	2.3	2.7	2.9	3.0	3.4
140 ~ 160	1.8	1.9	2.0	2.0	2.1	2.3	2.7	3.0	3.1	3.4