

H-ZK21	623581	$n_d = 1.62299$	$v_d = 58.12$	$n_F - n_C = 0.010719$
		$n_e = 1.62555$	$v_e = 57.87$	$n_{F'} - n_{C'} = 0.010809$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.59235
n_{1970}	1970.09	1.59795
n_{1530}	1529.58	1.60402
n_{1129}	1128.64	1.60931
n_{1064}	1064.00	1.61026
n_t	1013.98	1.61103
n_s	852.11	1.61401
$n_{A'}$	768.19	1.61603
n_r	706.52	1.61787
n_C	656.27	1.61973
$n_{C'}$	643.85	1.62025
n_{He-Ne}	632.80	1.62074
n_D	589.29	1.62290
n_d	587.56	1.62299
n_e	546.07	1.62555
n_F	486.13	1.63045
$n_{F'}$	479.99	1.63106
n_g	435.84	1.63629
n_h	404.66	1.64113
n_i	365.01	1.64946

Constants of Dispersion Formula	
A_0	2.59254654E+00
A_1	-1.10129354E-02
A_2	1.38896553E-02
A_3	8.21371542E-04
A_4	-8.84083953E-05
A_5	5.19951049E-06

Density		Solarization	
ρ (g/cm ³)	3.61	$\Delta\lambda$ (%)	-0.8

Relative Partial Dispersion	
$P_{d,C}$	0.3041
$P_{e,d}$	0.2388
$P_{g,F}$	0.5448
$P'_{d,c'}$	0.2535
$P'_{e,d}$	0.2368
$P'_{g,F'}$	0.4839

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0010
$\Delta P_{g,F}$	-0.0022
$\Delta P_{C,t}$	-0.0101
$\Delta P_{C,s}$	-0.0063

Thermal Properties	
T _g (°C)	664
T _s (°C)	706
T ₁₀ ^{14.5} (°C)	605
T ₁₀ ¹³ (°C)	651
$\alpha_{50/80^\circ C}$ (10 ⁻⁷ /K)	67
$\alpha_{100/300^\circ C}$ (10 ⁻⁷ /K)	79
λ (W/(m·K))	0.76

Mechanical Properties	
HK (10 ⁷ Pa)	551
F _A	138
E (GPa)	85.3
G (GPa)	33.3
μ	0.279
σ_b (MPa)	87.1
B (10 ⁻¹² /Pa)	1.81

Chemical Properties (grade)	
RC (S)	3
RA (S)	3
D _W	2
D _A	4
R _{OH} (S)	2
RP (S)	2

Expansion Coefficient α (×10 ⁻⁷ /K)	
°C	α
-50/-40	61
-40/-30	63
-30/-20	65
-20/-10	66
-10/0	66
0/10	67
10/20	67
20/30	68
30/40	68
40/50	69
50/60	69
60/70	70
70/80	70
80/90	70
90/100	71
100/110	71
110/120	72
120/130	73
130/140	74
140/150	75
150/160	76

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.882	0.778
2200	0.948	0.899
2000	0.980	0.960
1800	0.988	0.976
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	0.996	0.992
400	0.992	0.985
390	0.988	0.976
380	0.982	0.965
370	0.962	0.926
360	0.924	0.854
350	0.850	0.723
340	0.698	0.487
330	0.421	0.177
320	0.071	0.005
310		
300		
290		
280		

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	360/320
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	350/323

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	1.9	2.1	2.2	2.2	2.3	2.4	2.5	2.8	2.8	3.1
-40 ~ -20	1.9	2.1	2.2	2.2	2.3	2.4	2.5	2.8	2.8	3.2
-20 ~ 0	1.9	2.1	2.2	2.2	2.3	2.4	2.5	2.8	2.8	3.1
0 ~ 20	1.9	2.1	2.3	2.3	2.4	2.4	2.6	2.9	2.9	3.2
20 ~ 40	2.0	2.2	2.3	2.3	2.4	2.5	2.7	3.0	3.0	3.3
40 ~ 60	2.1	2.3	2.4	2.4	2.5	2.6	2.7	3.1	3.1	3.5
60 ~ 80	2.1	2.3	2.5	2.5	2.6	2.7	2.9	3.2	3.2	3.7
80 ~ 100	2.3	2.5	2.7	2.7	2.7	2.9	3.1	3.4	3.4	3.9
100 ~ 120	2.4	2.6	2.8	2.8	2.8	3.1	3.3	3.5	3.5	4.0
120 ~ 140	2.4	2.7	2.9	2.9	2.9	3.2	3.5	3.6	3.7	4.2
140 ~ 160	2.5	2.8	3.0	3.1	3.1	3.4	3.6	3.7	3.8	4.3

Constants of dn/dt		
D ₀	D ₁	D ₂
5.19E-07	1.33E-08	-1.46E-11
E ₀	E ₁	λ_{TK}
4.16E-07	4.90E-10	2.14E-01