

H-ZF3	717295	$n_d = 1.71736$	$v_d = 29.50$	$n_F - n_C = 0.024318$
		$n_e = 1.72310$	$v_e = 29.27$	$n_F - n_C = 0.024707$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.67093
n_{1970}	1970.09	1.67676
n_{1530}	1529.58	1.68361
n_{1129}	1128.64	1.69079
n_{1064}	1064.00	1.69228
n_t	1013.98	1.69355
n_s	852.11	1.69884
$n_{A'}$	768.19	1.70274
n_f	706.52	1.70647
n_C	656.27	1.71032
$n_{C'}$	643.85	1.71142
n_{He-Ne}	632.80	1.71245
n_D	589.29	1.71715
n_d	587.56	1.71736
n_e	546.07	1.72310
n_F	486.13	1.73464
$n_{F'}$	479.99	1.73613
n_g	435.84	1.74933
n_h	404.66	1.76249
n_i	365.01	1.78745

Relative Partial Dispersion	
$P_{d,C}$	0.2895
$P_{e,d}$	0.2360
$P_{g,F}$	0.6041
$P'_{d,c'}$	0.2404
$P'_{e,d}$	0.2323
$P'_{g,F'}$	0.5343

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	0.934	0.872
2200	0.963	0.927
2000	0.993	0.986
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	0.998	0.996
500	0.996	0.992
480	0.994	0.989
460	0.992	0.985
440	0.990	0.978
420	0.981	0.963
400	0.954	0.910
390	0.911	0.829
380	0.801	0.641
370	0.534	0.286
360	0.161	0.026
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0095
$\Delta P_{C,t}$	0.0066
$\Delta P_{C,s}$	0.0009

Expansion Coefficient α ($\times 10^{-7}/K$)	
$^{\circ}C$	α
-50/-40	75
-40/-30	78
-30/-20	80
-20/-10	82
-10/0	83
0/10	84
10/20	84
20/30	85
30/40	85
40/50	86
50/60	87
60/70	88
70/80	89
80/90	90
90/100	91
100/110	92
110/120	93
120/130	95
130/140	96
140/150	97
150/160	98

Thermal Properties	
T _g ($^{\circ}C$)	601
T _s ($^{\circ}C$)	634
T ₁₀ ^{14.5} ($^{\circ}C$)	538
T ₁₀ ¹³ ($^{\circ}C$)	572
$\alpha_{-50/80^{\circ}C}$ ($10^{-7}/K$)	84
$\alpha_{100/300^{\circ}C}$ ($10^{-7}/K$)	107
λ (W/(m K))	1.14

Mechanical Properties	
HK ($10^7 Pa$)	578
F _A	164
E (GPa)	88.0
G (GPa)	34.5
μ	0.276
σ_b (MPa)	74
B ($10^{-12}/Pa$)	2.66

Constants of Dispersion Formula	
A ₀	2.84670798E+00
A ₁	-1.12350760E-02
A ₂	3.23607570E-02
A ₃	1.62442342E-03
A ₄	-8.05719818E-05
A ₅	1.55748376E-05

Density	Solarization
ρ (g/cm ³) 3.06	$\Delta\lambda$ (%) -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	0.4	1.0	1.5	1.5	1.5	1.8	2.1	2.9	3.0	4.1
-40 ~ -20	0.5	1.1	1.4	1.4	1.5	1.8	2.0	3.1	3.1	4.3
-20 ~ 0	0.6	1.2	1.4	1.5	1.5	1.9	2.2	3.2	3.3	4.5
0 ~ 20	0.6	1.2	1.4	1.5	1.5	1.9	2.2	3.3	3.4	4.7
20 ~ 40	0.6	1.3	1.5	1.6	1.6	1.9	2.4	3.5	3.6	5.0
40 ~ 60	0.6	1.4	1.6	1.7	1.7	2.0	2.6	3.8	3.8	5.2
60 ~ 80	0.8	1.4	1.7	1.7	1.8	2.3	2.6	4.0	4.0	5.5
80 ~ 100	0.9	1.6	1.8	1.9	1.9	2.3	2.8	4.1	4.1	5.6
100 ~ 120	0.9	1.7	2.0	2.1	2.1	2.4	2.9	4.1	4.2	5.8
120 ~ 140	1.1	1.8	2.1	2.2	2.3	2.7	3.1	4.2	4.3	6.0
140 ~ 160	1.2	1.9	2.3	2.3	2.4	2.8	3.3	4.3	4.4	6.1

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	405/360
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	387/362

Constants of dn/dt		
D ₀	D ₁	D ₂
-2.26E-06	1.29E-08	-2.10E-11
E ₀	E ₁	λ_{TK}
7.27E-07	5.23E-10	3.08E-01