

H-ZF4AGT	728283	$n_d = 1.72825$	$v_d = 28.32$	$n_F - n_C = 0.025716$
		$n_e = 1.73432$	$v_e = 28.10$	$n_{F'} - n_{C'} = 0.026133$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	
n_{1970}	1970.09	
n_{1530}	1529.58	
n_{1129}	1128.64	1.70032
n_{1064}	1064.00	1.70187
n_t	1013.98	1.70320
n_s	852.11	1.70873
$n_{A'}$	768.19	1.71283
n_f	706.52	1.71676
n_C	656.27	1.72082
$n_{C'}$	643.85	1.72198
n_{He-Ne}	632.80	1.72306
n_D	589.29	1.72802
n_d	587.56	1.72825
n_e	546.07	1.73432
n_F	486.13	1.74654
$n_{F'}$	479.99	1.74811
n_g	435.84	1.76215
n_h	404.66	1.77622
n_i	365.01	1.80305

Relative Partial Dispersion	
$P_{d,C}$	0.2889
$P_{e,d}$	0.2360
$P_{g,F}$	0.6070
$P'_{d,c'}$	0.2399
$P'_{e,d}$	0.2323
$P'_{g,F'}$	0.5373

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	0.902	0.814
2200	0.938	0.880
2000	0.970	0.940
1800	0.982	0.964
1600	0.994	0.987
1400	0.996	0.992
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	0.998	0.997
650	0.998	0.996
600	0.998	0.996
550	0.997	0.994
500	0.995	0.989
480	0.993	0.986
460	0.991	0.981
440	0.987	0.974
420	0.978	0.957
400	0.949	0.900
390	0.898	0.806
380	0.775	0.601
370	0.493	0.243
360	0.136	0.019
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0105
$\Delta P_{C,t}$	0.0078
$\Delta P_{C,s}$	0.0018

Expansion Coefficient α ($\times 10^{-7}/K$)	
$^{\circ}C$	α
-50/-40	79
-40/-30	82
-30/-20	84
-20/-10	84
-10/0	85
0/10	86
10/20	87
20/30	90
30/40	91
40/50	93
50/60	94
60/70	94
70/80	95
80/90	95
90/100	97
100/110	97
110/120	99
120/130	100
130/140	100
140/150	101
150/160	103

Thermal Properties	
T _g ($^{\circ}C$)	594
T _s ($^{\circ}C$)	621
T ₁₀ ^{14.5} ($^{\circ}C$)	530
T ₁₀ ¹³ ($^{\circ}C$)	559
$\alpha_{-50/80^{\circ}C}$ ($10^{-7}/K$)	86
$\alpha_{100/300^{\circ}C}$ ($10^{-7}/K$)	105
λ (W/(m K))	1.12

Constants of Dispersion Formula	
A ₀	2.87790099E+00
A ₁	-1.14975391E-02
A ₂	3.40752512E-02
A ₃	1.83854310E-03
A ₄	-1.04547399E-04
A ₅	1.87465641E-05

Mechanical Properties	
HK (10^7 Pa)	551
F _A	210
E (GPa)	90.7
G (GPa)	36.0
μ	0.262
σ_b (MPa)	73
B (10^{-12} /Pa)	2.65

Density		Solarization	
ρ (g/cm ³)	3.05	$\Delta\lambda$ (%)	-0.3

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	-1.2	-1.0	-0.7	-0.6	-0.5	-0.3	0.4	1.3	1.4	1.9
-40 ~ -20	-1.2	-0.9	-0.5	-0.4	-0.4	-0.1	0.6	1.5	1.7	2.4
-20 ~ 0	-1.1	-0.7	-0.3	-0.2	-0.1	0.3	0.9	1.6	1.8	2.7
0 ~ 20	-1.1	-0.5	-0.2	-0.1	0.1	0.4	1.2	1.7	1.9	2.9
20 ~ 40	-1.0	-0.3	0.0	0.1	0.2	0.6	1.4	1.8	2.0	3.1
40 ~ 60	-1.0	-0.3	0.2	0.3	0.4	0.8	1.6	1.9	2.2	3.4
60 ~ 80	-0.9	-0.1	0.3	0.4	0.5	1.0	1.8	2.3	2.5	3.5
80 ~ 100	-0.9	-0.1	0.5	0.5	0.6	1.2	2.0	2.6	2.8	4.0
100 ~ 120	-0.8	0.1	0.7	0.7	0.8	1.3	2.1	2.9	3.1	4.2
120 ~ 140	-0.7	0.3	0.8	0.9	0.9	1.7	2.5	3.2	3.4	4.4
140 ~ 160	-0.7	0.4	0.9	1.0	1.1	1.8	2.6	3.5	3.6	4.6

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	410/365
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	390/364

Constants of dn/dt		
D ₀	D ₁	D ₂
-6.13E-06	1.41E-08	-2.55E-11
E ₀	E ₁	λ_{TK}
1.37E-06	1.29E-09	1.57E-01