H-FK90 459902

$n_d = 1.45860$	$\upsilon_d = 90.19$	$n_F - n_C = 0.005085$
$n_e = 1.45981$	$\upsilon_e = 89.77$	$n_{F'} - n_{C'} = 0.005122$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.44358
n_{1970}	1970.09	1.44630
n_{1530}	1529.58	1.44928
n_{1129}	1128.64	1.45191
n_{1064}	1064.00	1.45238
n_t	1013.98	1.45277
n_s	852.11	1.45425
$n_{A'}$	768.19	1.45524
n_r	706.52	1.45615
n_C	656.27	1.45704
$n_{C'}$	643.85	1.45729
n_{He-Ne}	632.80	1.45752
n_D	589.29	1.45855
n_d	587.56	1.45860
n_e	546.07	1.45981
n_F	486.13	1.46212
$n_{F'}$	479.99	1.46241
n_g	435.84	1.46486
n_h	404.66	1.46710
n_i	365.01	1.47085

Constants of Dispersion Formula	
A_0	2.10866977E+00
A_1	-4.81589397E-03
A_2	7.02478609E-03
A_3	-2.48667024E-05
A_4	1.78185408E-05
A_5	-1.09874507E-06

Density	
ρ (g/cm^3)	3.64

Solarization	
△λ (%)	-0.5

Relative Partial Dispersion	
$P_{d,C}$	0.3068
$P_{e,d}$	0.2380
$P_{g,F}$	0.5388
$P'_{d,c'}$	0.2558
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4783

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0139
$\Delta P_{g,F}$	0.0450
$\Delta P_{C,t}$	-0.1374
$\Delta P_{C,s}$	-0.0682

Thermal Properties	
Tg (℃)	442
Ts (℃)	467
$T_{10}^{14.5}$ (℃)	423
T_{10}^{13} (℃)	436
$\alpha_{-50/80℃}$ (10^{-7}/K)	134
$\alpha_{100/300℃}$ (10^{-7}/K)	164
λ (W/(m·K))	0.71

Mechanical Properties	
HK (10^7Pa)	354
F_A	459
E (GPa)	68.9
G (GPa)	26.2
μ	0.313
σ_b (MPa)	47.5
B (10^{-12}/Pa)	0.60

Chemical Properties (grade)	
RC (S)	1
RA (S)	2
D_W	2
D_A	3
R_{OH} (S)	4
RP (S)	2

Expansion Coefficient α ($\times 10^{-7}$/K)	
℃	α
-50/-40	123
-40/-30	126
-30/-20	128
-20/-10	130
-10/0	132
0/10	133
10/20	135
20/30	138
30/40	140
40/50	143
50/60	144
60/70	145
70/80	146
80/90	147
90/100	149
100/110	150
110/120	151
120/130	153
130/140	155
140/150	157
150/160	160

Internal Transmittance		
λ (nm)	τ5mm	τ10mm
2400	0.999	0.998
2200	0.999	0.998
2000	0.999	0.998
1800	0.999	0.998
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	0.999	0.998
400	0.999	0.998
390	0.999	0.998
380	0.999	0.998
370	0.999	0.998
360	0.998	0.996
350	0.997	0.994
340	0.993	0.986
330	0.984	0.968
320	0.967	0.935
310	0.935	0.874
300	0.883	0.779
290	0.809	0.654
280	0.721	0.520

Range of Temperature (℃)	Temperature Coefficients of Refractive Index dn/dt relative ($\times 10^{-6}$ / ℃)									
	t	s	C	C'	He-Ne	d	e	F	F'	g
-60 ~ -40	-7.0	-6.7	-6.5	-6.4	-6.2	-6.0	-5.9	-5.6	-5.6	-5.3
-40 ~ -20	-7.2	-6.8	-6.5	-6.5	-6.4	-6.2	-6.0	-5.8	-5.8	-5.5
-20 ~ 0	-7.3	-6.9	-6.7	-6.7	-6.6	-6.4	-6.3	-6.0	-5.9	-5.7
0 ~ 20	-7.3	-7.0	-6.8	-6.8	-6.7	-6.5	-6.5	-6.1	-6.1	-6.0
20 ~ 40	-7.5	-7.1	-7.0	-6.9	-6.8	-6.5	-6.5	-6.2	-6.2	-6.2
40 ~ 60	-7.6	-7.3	-7.2	-7.2	-7.1	-6.7	-6.6	-6.5	-6.5	-6.3
60 ~ 80	-7.9	-7.6	-7.5	-7.5	-7.4	-7.0	-7.0	-6.8	-6.7	-6.6
80 ~ 100	-8.0	-7.8	-7.7	-7.6	-7.4	-7.2	-7.1	-6.9	-6.8	-6.7
100 ~ 120	-8.1	-8.1	-8.0	-7.9	-7.8	-7.6	-7.4	-7.2	-7.2	-7.0
120 ~ 140	-8.2	-8.0	-8.0	-8.0	-7.9	-7.8	-7.7	-7.5	-7.5	-7.3
140 ~ 160	-8.4	-8.3	-8.3	-8.2	-8.2	-8.0	-8.0	-7.9	-7.8	-7.6

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	310/260
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	300/260

Constants of dn/dt		
D_0	D_1	D_2
-2.37E-05	5.32E-09	-4.63E-11
E_0	E_1	λ_{TK}
9.51E-07	-1.08E-09	2.02E-08