

<b>H-F4</b>	<b>620364</b>	$n_d = 1.62005$	$v_d = 36.35$	$n_F - n_C = 0.017060$
		$n_e = 1.62408$	$v_e = 36.09$	$n_{F'} - n_{C'} = 0.017291$

Refractive Indices		
	$\lambda$ (nm)	$n_\lambda$
$n_{2325}$	2325.42	1.58141
$n_{1970}$	1970.09	1.58736
$n_{1530}$	1529.58	1.59402
$n_{1129}$	1128.64	1.60033
$n_{1064}$	1064.00	1.60154
$n_t$	1013.98	1.60256
$n_s$	852.11	1.60664
$n_{A'}$	768.19	1.60954
$n_r$	706.52	1.61226
$n_C$	656.27	1.61504
$n_{C'}$	643.85	1.61582
$n_{He-Ne}$	632.80	1.61656
$n_D$	589.29	1.61990
$n_d$	587.56	1.62005
$n_e$	546.07	1.62408
$n_F$	486.13	1.63210
$n_{F'}$	479.99	1.63312
$n_g$	435.84	1.64214
$n_h$	404.66	1.65099
$n_i$	365.01	1.66740

Relative Partial Dispersion	
$P_{d,C}$	0.2937
$P_{e,d}$	0.2362
$P_{g,F}$	0.5885
$P'_{d,c'}$	0.2446
$P'_{e,d}$	0.2331
$P'_{g,F'}$	0.5217

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

Internal Transmittance		
$\lambda$ (nm)	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.934	0.872
2200	0.945	0.893
2000	0.994	0.989
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	0.997	0.994
440	0.995	0.990
420	0.992	0.981
400	0.982	0.961
390	0.963	0.925
380	0.910	0.828
370	0.749	0.568
360	0.363	0.140
350		
340		
330		
320		
310		
300		
290		
280		

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	0.0053
$\Delta P_{C,t}$	0.0153
$\Delta P_{C,s}$	0.0047

Expansion Coefficient $\alpha$ ( $\times 10^{-7}/K$ )	
$^{\circ}C$	$\alpha$
-50/-40	71
-40/-30	73
-30/-20	75
-20/-10	76
-10/0	77
0/10	77
10/20	78
20/30	79
30/40	79
40/50	79
50/60	80
60/70	80
70/80	81
80/90	81
90/100	82
100/110	83
110/120	84
120/130	86
130/140	86
140/150	87
150/160	88

Thermal Properties	
$T_g$ ( $^{\circ}C$ )	590
$T_s$ ( $^{\circ}C$ )	635
$T_{10}^{14.5}$ ( $^{\circ}C$ )	524
$T_{10}^{13}$ ( $^{\circ}C$ )	563
$\alpha_{50/80^{\circ}C}$ ( $10^{-7}/K$ )	73
$\alpha_{100/300^{\circ}C}$ ( $10^{-7}/K$ )	90
$\lambda$ (W/(m·K))	1.39

Mechanical Properties	
HK ( $10^7$ Pa)	603
$F_A$	118
E (GPa)	83.0
G (GPa)	33.3
$\mu$	0.246
$\sigma_b$ (MPa)	71.8
B ( $10^{-12}$ /Pa)	3.07

Constants of Dispersion Formula	
$A_0$	2.55786478E+00
$A_1$	-1.12844748E-02
$A_2$	2.15761024E-02
$A_3$	1.06818810E-03
$A_4$	-6.19068712E-05
$A_5$	8.79794163E-06

Density		Solarization	
$\rho$ (g/cm <sup>3</sup> )	2.66	$\Delta\lambda$ (%)	-1.2

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	2.5	2.9	3.1	3.1	3.2	3.4	3.7	4.3	4.4	4.9
-40 ~ -20	2.5	3.0	3.2	3.2	3.2	3.4	3.8	4.3	4.4	5.1
-20 ~ 0	2.6	3.0	3.3	3.3	3.4	3.5	3.8	4.5	4.5	5.3
0 ~ 20	2.6	3.1	3.4	3.4	3.4	3.6	3.9	4.6	4.6	5.5
20 ~ 40	2.6	3.1	3.4	3.4	3.4	3.6	4.0	4.8	4.8	5.6
40 ~ 60	2.7	3.2	3.5	3.5	3.5	3.7	4.0	4.9	4.9	5.8
60 ~ 80	2.9	3.4	3.7	3.7	3.7	3.9	4.3	5.1	5.1	6.0
80 ~ 100	3.0	3.5	3.8	3.8	3.8	4.0	4.4	5.3	5.3	6.2
100 ~ 120	3.1	3.7	4.0	4.0	4.0	4.1	4.6	5.4	5.4	6.3
120 ~ 140	3.3	3.8	4.1	4.1	4.1	4.2	4.7	5.5	5.6	6.3
140 ~ 160	3.3	3.8	4.2	4.2	4.3	4.4	4.8	5.6	5.7	6.4

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	390/360
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	377/356

Constants of dn/dt		
$D_0$	$D_1$	$D_2$
1.85E-06	1.51E-08	-2.19E-11
$E_0$	$E_1$	$\lambda_{TK}$
6.75E-07	4.19E-10	2.71E-01