

## N-BK7HTi 517642.251

$n_d = 1.51680$	$v_d = 64.17$	$n_F - n_C = 0.008054$
$n_e = 1.51872$	$v_e = 63.96$	$n_{F'} - n_{C'} = 0.008110$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.48921
$n_{1970.1}$	1970.1	1.49495
$n_{1529.6}$	1529.6	1.50091
$n_{1060.0}$	1060.0	1.50669
$n_t$	1014.0	1.50731
$n_s$	852.1	1.50980
$n_r$	706.5	1.51289
$n_C$	656.3	1.51432
$n_{C'}$	643.8	1.51472
$n_{632.8}$	632.8	1.51509
$n_D$	589.3	1.51673
$n_d$	587.6	1.51680
$n_e$	546.1	1.51872
$n_F$	486.1	1.52238
$n_{F'}$	480.0	1.52283
$n_g$	435.8	1.52668
$n_h$	404.7	1.53024
$n_i$	365.0	1.53627
$n_{334.1}$	334.1	1.54272
$n_{312.6}$	312.6	1.54862
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.752	0.490
2325	0.845	0.657
1970	0.954	0.888
1530	0.995	0.987
1060	0.999	0.999
700	0.999	0.998
660	0.999	0.997
620	0.999	0.997
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.996
436	0.998	0.996
420	0.998	0.996
405	0.998	0.996
400	0.998	0.996
390	0.998	0.994
380	0.997	0.992
370	0.996	0.989
365	0.994	0.985
350	0.985	0.964
334	0.948	0.875
320	0.815	0.600
310	0.567	0.242
300	0.221	0.023
290	0.040	
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.3098
$P_{C,s}$	0.5612
$P_{d,C}$	0.3076
$P_{e,d}$	0.2386
$P_{g,F}$	0.5349
$P_{i,h}$	0.7483
$P'_{s,t}$	0.3076
$P'_{C',s}$	0.6062
$P'_{d,C'}$	0.2566
$P'_{e,d}$	0.2370
$P'_{g,F'}$	0.4754
$P'_{i,h}$	0.7432

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

$\Delta P_{C,t}$	0.0216
$\Delta P_{C,s}$	0.0087
$\Delta P_{F,e}$	-0.0009
$\Delta P_{g,F}$	-0.0009
$\Delta P_{i,g}$	0.0035

Constants of Dispersion Formula	
$B_1$	1.03961212
$B_2$	0.231792344
$B_3$	1.01046945
$C_1$	0.00600069867
$C_2$	0.0200179144
$C_3$	103.560653

Constants of Dispersion $dn/dT$	
$D_0$	$1.86 \cdot 10^{-6}$
$D_1$	$1.31 \cdot 10^{-8}$
$D_2$	$-1.37 \cdot 10^{-11}$
$E_0$	$4.34 \cdot 10^{-7}$
$E_1$	$6.27 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.17

Color Code	
$\lambda_{80}/\lambda_5$	33/29
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
i-line glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.1
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	8.3
$T_g [^\circ C]$	557
$T_{10}^{13.0} [^\circ C]$	557
$T_{10}^{7.6} [^\circ C]$	719
$c_p [J/(g \cdot K)]$	0.858
$\lambda [W/(m \cdot K)]$	1.114
$\rho [g/cm^3]$	2.51
$E [10^3 N/mm^2]$	82
$\mu$	0.206
$K [10^{-6} mm^2/N]$	2.77
$HK_{0.1/20}$	610
<b>HG</b>	3
<b>CR</b>	1
<b>FR</b>	0
<b>SR</b>	1
<b>AR</b>	2.3
<b>PR</b>	2.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.4	2.9	3.3	0.3	0.8	1.2
+20/ +40	2.4	3.0	3.5	1.1	1.6	2.1
+60/ +80	2.5	3.1	3.7	1.5	2.1	2.7