

## SCHOTT N-BK7® 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	

### Constants of Dispersion Formula

$B_1$	1.039612120
$B_2$	0.231792344
$B_3$	1.010469450
$C_1$	0.006000699
$C_2$	0.0200179144
$C_3$	103.56065300

### Constants of Formula for $dn/dT$

$D_0$	1.86E-06
$D_1$	1.31E-08
$D_2$	-1.37E-11
$E_0$	4.34E-07
$E_1$	6.27E-10
$\lambda_{TK}$ [ $\mu\text{m}$ ]	0.170

### Temperature Coefficients of the Refractive Index

[°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

### Internal Transmittance $\tau_i$

$\lambda$ [nm]	$\tau_i$ [10mm]	$\tau_i$ [25mm]
2500	0.67	0.36
2325	0.79	0.56
1970	0.93	0.84
1530	0.992	0.980
1060	0.999	0.997
700	0.998	0.996
660	0.998	0.994
620	0.998	0.994
580	0.998	0.995
546	0.998	0.996
500	0.998	0.994
460	0.997	0.993
436	0.997	0.992
420	0.997	0.993
405	0.997	0.993
400	0.997	0.992
390	0.996	0.989
380	0.993	0.983
370	0.991	0.977
365	0.988	0.971
350	0.967	0.92
334	0.91	0.78
320	0.77	0.52
310	0.57	0.25
300	0.29	0.05
290	0.06	
280		
270		
260		
250		

### Color Code

$\lambda_{80} / \lambda_5$  33/29

### Remarks

step 0.5 available

### Relative Partial Dispersion P

$P_{s,t}$	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

### Relative Partial Dispersion P'

$P'_{s,t}$	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 Rel. Partial Disp.

#### $\Delta P$ 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

### Chemical Properties

CR	1
FR	0
SR	1
AR	2.3
PR	2.3

### Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [ $10^{-6}/K$ ]	7.1
$\alpha_{+20/+300^\circ\text{C}}$ [ $10^{-6}/K$ ]	8.3
$T_g$ [°C]	557
$T_{10}^{13}$ [°C]	557
$T_{10}^{7.6}$ [°C]	719
$c_p$ [J/(g·K)]	0.858
$\lambda$ [W/(m·K)]	1.114
AT [°C]	609
$\rho$ [g/cm <sup>3</sup> ]	2.51
E [10 <sup>3</sup> N/mm <sup>2</sup> ]	82
$\mu$	0.206
K [10 <sup>-6</sup> mm <sup>2</sup> /N]	2.76
HK <sub>0.1/20</sub>	610
HG	3