

BK7G18 520636.252

$n_d = 1.51975$
 $n_e = 1.52170$

$v_d = 63.58$
 $v_e = 63.36$

$n_F - n_C = 0.008174$
 $n_{F'} - n_{C'} = 0.008233$

Refractive Indices		
	λ [nm]	
$n_{2325.4}$	2325.4	1.49203
$n_{1970.1}$	1970.1	1.49777
$n_{1529.6}$	1529.6	1.50373
$n_{1060.0}$	1060.0	1.50953
n_t	1014.0	1.51015
n_s	852.1	1.51267
n_r	706.5	1.51579
n_C	656.3	1.51724
$n_{C'}$	643.8	1.51764
$n_{632.8}$	632.8	1.51802
n_D	589.3	1.51968
n_d	587.6	1.51975
n_e	546.1	1.52170
n_F	486.1	1.52541
$n_{F'}$	480.0	1.52587
n_g	435.8	1.52981
n_h	404.7	1.53345
n_i	365.0	1.53970
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula	
B_1	1.265385420
B_2	0.014419107
B_3	1.003230280
C_1	0.008131041
C_2	0.0543303226
C_3	102.82116600

Constants of Formula for dn/dT	
D_0	1.52E-06
D_1	1.37E-08
D_2	-1.26E-11
E_0	4.36E-07
E_1	4.17E-10
λ_{TK} [μm]	0.194

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	2.2	2.7	3.3	0.2	0.7	1.2
+20/+40	2.2	2.8	3.4	0.9	1.5	2.1
+60/+80	2.4	3.0	3.7	1.4	2.0	2.6

Internal Transmittance τ_i		
λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.630	0.320
2325	0.780	0.540
1970	0.930	0.840
1530	0.992	0.979
1060	0.999	0.998
700	0.997	0.993
660	0.995	0.988
620	0.994	0.984
580	0.992	0.979
546	0.989	0.973
500	0.982	0.957
460	0.970	0.930
436	0.950	0.870
420	0.910	0.780
405	0.820	0.600
400	0.760	0.510
390	0.600	0.280
380	0.360	0.080
370	0.080	
365	0.020	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code	
$\lambda_{80} / \lambda_{5}$	41/37

Remarks
radiation resistant glass

Relative Partial Dispersion P	
$P_{s,t}$	0.3077
$P_{C,s}$	0.5591
$P_{d,C}$	0.3071
$P_{e,d}$	0.2385
$P_{g,F}$	0.5376
$P_{i,h}$	
Relative Partial Dispersion P'	
$P'_{s,t}$	0.3055
$P'_{C,s}$	0.6040
$P'_{d,C'}$	0.2561
$P'_{e,d}$	0.2368
$P'_{g,F'}$	0.4777
$P'_{i,h}$	

Deviation of Rel. Partial Disp. ΔP from the normal line	
$\Delta P_{C,t}$	0.0203
$\Delta P_{C,s}$	0.0080
$\Delta P_{F,e}$	-0.0006
$\Delta P_{g,F}$	0.0007
$\Delta P_{i,g}$	

Chemical Properties	
CR	
FR	0
SR	1
AR	2
PR	

Other Properties	
$\alpha_{-30/+70^\circ C}$ [$10^{-6}/K$]	7.0
$\alpha_{+20/+300^\circ C}$ [$10^{-6}/K$]	8.2
T_g [°C]	585
T_{10}^{13} [°C]	570
$T_{10}^{7.6}$ [°C]	722
c_p [J/(g*K)]	0.820
λ [W/(m*K)]	1.190
ρ [g/cm ³]	2.52
E [10^3 N/mm ²]	82
μ	0.205
K [10^{-6} mm ² /N]	2.77
$HK_{0.1/20}$	580