Data Sheet

SCHOTT

N-ZK7
508612.249

n_d = 1.50847	ν_d = 61.19	$n_F - n_C$ = 0.008310
n_e = 1.51045	ν_e = 60.98	$n_{F'} - n_{C'}$ = 0.008370

Refractive Indices		
	λ [nm]	
$n_{2325.4}$	2325.4	1.48062
$n_{1970.1}$	1970.1	1.48637
$n_{1529.6}$	1529.6	1.49233
$n_{1060.0}$	1060.0	1.49813
n_t	1014.0	1.49876
n_s	852.1	1.50129
n_r	706.5	1.50445
n_C	656.3	1.50592
$n_{C'}$	643.8	1.50633
$n_{632.8}$	632.8	1.50671
n_D	589.3	1.50840
n_d	587.6	1.50847
n_e	546.1	1.51045
n_F	486.1	1.51423
$n_{F'}$	480.0	1.51470
n_g	435.8	1.51869
n_h	404.7	1.52238
n_i	365.0	1.52865
$n_{334.1}$	334.1	1.53538
$n_{312.6}$	312.6	1.54155
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula	
B_1	1.07715032
B_2	0.168079109
B_3	0.851889892
C_1	0.00676601657
C_2	0.0230642817
C_3	89.0498778

Constants of Formula for dn/dT	
D_0	1.15E-05
D_1	1.73E-08
D_2	-8.06E-11
E_0	4.32E-07
E_1	7.05E-10
λ_{TK} [µm]	0.179

Internal Transmittance τ_i		
λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.660	0.350
2325	0.850	0.660
1970	0.971	0.930
1530	0.990	0.976
1060	0.998	0.994
700	0.998	0.996
660	0.998	0.994
620	0.998	0.994
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.995	0.988
436	0.994	0.984
420	0.992	0.981
405	0.991	0.977
400	0.990	0.975
390	0.987	0.969
380	0.982	0.956
370	0.976	0.940
365	0.971	0.930
350	0.940	0.860
334	0.850	0.670
320	0.690	0.390
310	0.490	0.170
300	0.220	0.030
290	0.030	
280		
270		
260		
250		

Color Code	
λ_{80} / λ_5	34/29

(*= λ_{70}/λ_5)

Remarks

Relative Partial Dispersion	
$P_{s,t}$	0.3049
$P_{C,s}$	0.5570
$P_{d,C}$	0.3069
$P_{e,d}$	0.2386
$P_{g,F}$	0.5370
$P_{i,h}$	0.7543
$P'_{s,t}$	0.3027
$P'_{C',s}$	0.6017
$P'_{d,C'}$	0.2560
$P'_{e,d}$	0.2369
$P'_{g,F'}$	0.4771
$P'_{i,h}$	0.7488

Deviation of Relative Partial Dispersion ΔP from the normal line	
$\Delta P_{C,t}$	0.0267
$\Delta P_{C,s}$	0.0115
$\Delta P_{F,e}$	-0.0017
$\Delta P_{g,F}$	-0.0039
$\Delta P_{i,g}$	-0.0129

Other Properties	
$\alpha_{-30/+70°C}$ [10^{-6}/K]	4.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	5.2
T_g [°C]	539
$T_{10^{13}}$ [°C]	
$T_{10^{7.6}}$ [°C]	721
c_p [J/(g*K)]	0.770
λ [W/(m•K)]	1.042
ρ [g/cm^3]	2.49
E [10^3 N/mm^2]	70
µ	0.214
K [10^{-6} mm^2/N]	3.63
$HK_{0.1/20}$	530
HG	4
CR	1
FR	0
SR	2
AR	1.2
PR	2.2

Temperature Coefficients of the Refractive Index						
	$\Delta n_{rel}/\Delta T$ [10^{-6}/K]			$\Delta n_{abs}/\Delta T$ [10^{-6}/K]		
[°C]	**1060.0**	**e**	**g**	**1060.0**	**e**	**g**
-40/-20	5.9	6.5	7.0	3.9	4.5	4.9
+20/+40	6.4	7.0	7.6	5.1	5.7	6.3
+60/+80	6.4	7.2	7.8	5.4	6.2	6.8