Data Sheet

SCHOTT

N-SF14
762265.312

n_d = 1.76182	ν_d = 26.53	$n_F - n_C$ = 0.028715
n_e = 1.76859	ν_e = 26.32	$n_{F'} - n_{C'}$ = 0.029204

Refractive Indices		
	λ [nm]	
$n_{2325.4}$	2325.4	1.70954
$n_{1970.1}$	1970.1	1.71581
$n_{1529.6}$	1529.6	1.72315
$n_{1060.0}$	1060.0	1.73284
n_t	1014.0	1.73417
n_s	852.1	1.74022
n_r	706.5	1.74907
n_C	656.3	1.75356
$n_{C'}$	643.8	1.75485
$n_{632.8}$	632.8	1.75606
n_D	589.3	1.76157
n_d	587.6	1.76182
n_e	546.1	1.76859
n_F	486.1	1.78228
$n_{F'}$	480.0	1.78405
n_g	435.8	1.79986
n_h	404.7	1.81570
n_i	365.0	
$n_{334.1}$	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	1.69022361
B_2	0.288870052
B_3	1.704518700
C_1	0.01305121130
C_2	0.0613691880
C_3	149.5176890

Constants of Formula for dn/dT	
D_0	-5.56E-06
D_1	7.09E-09
D_2	-1.09E-11
E_0	9.85E-07
E_1	1.39E-09
λ_{TK} [µm]	0.287

Internal Transmittance τ_i		
λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.800	0.570
2325	0.840	0.640
1970	0.950	0.880
1530	0.992	0.980
1060	0.999	0.998
700	0.994	0.985
660	0.995	0.987
620	0.995	0.987
580	0.995	0.987
546	0.993	0.983
500	0.985	0.964
460	0.975	0.940
436	0.963	0.910
420	0.950	0.870
405	0.910	0.790
400	0.890	0.750
390	0.820	0.610
380	0.640	0.330
370	0.280	0.040
365	0.100	0.000
350	0.000	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code	
λ_{80} / λ_5	42/36

(*= λ_{70}/λ_5)

Remarks

Relative Partial Dispersion	
$P_{s,t}$	0.2107
$P_{C,s}$	0.4646
$P_{d,C}$	0.2875
$P_{e,d}$	0.2357
$P_{g,F}$	0.6122
$P_{i,h}$	
$P'_{s,t}$	0.2072
$P'_{C',s}$	0.5008
$P'_{d,C'}$	0.2387
$P'_{e,d}$	0.2318
$P'_{g,F'}$	0.5413
$P'_{i,h}$	

Deviation of Relative Partial Dispersion ΔP from the normal line	
$\Delta P_{C,t}$	0.0044
$\Delta P_{C,s}$	-0.0002
$\Delta P_{F,e}$	0.0024
$\Delta P_{g,F}$	0.0130
$\Delta P_{i,g}$	

Other Properties	
$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.9
T_g [°C]	566
$T_{10^{13}}$ [°C]	562
$T_{10^{7.6}}$ [°C]	657
c_p [J/(g*K)]	0.750
λ [W/(m•K)]	1.000
ρ [g/cm^3]	3.12
E [10^3 N/mm^2]	88
µ	0.259
K [10^{-6} mm^2/N]	2.89
$HK_{0.1/20}$	515
HG	5
CR	1
FR	0
SR	1
AR	1
PR	1

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	-0.9	0.9	3.4	-3.2	-1.5	0.9
+20/+40	-1.1	1.1	4.1	-2.6	-0.4	2.5
+60/+80	-1.1	1.4	4.7	-2.2	0.2	3.4