Data Sheet

SCHOTT

N-SK5
589613.330

$n_d = 1.58913$	$\nu_d = 61.27$	$n_F - n_C = 0.009616$
$n_e = 1.59142$	$\nu_e = 61.02$	$n_{F'} - n_{C'} = 0.009692$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55966
$n_{1970.1}$	1970.1	1.56539
$n_{1529.6}$	1529.6	1.57140
$n_{1060.0}$	1060.0	1.57747
n_t	1014.0	1.57815
n_s	852.1	1.58094
n_r	706.5	1.58451
n_C	656.3	1.58619
$n_{C'}$	643.8	1.58666
$n_{632.8}$	632.8	1.58710
n_D	589.3	1.58904
n_d	587.6	1.58913
n_e	546.1	1.59142
n_F	486.1	1.59581
$n_{F'}$	480.0	1.59635
n_g	435.8	1.60100
n_h	404.7	1.60530
n_i	365.0	1.61260
$n_{334.1}$	334.1	1.62043
$n_{312.6}$	312.6	1.62759
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.991463823
B_2	0.495982121
B_3	0.987393925
C_1	0.00522730467
C_2	0.0172733646
C_3	98.3594579

Constants of Dispersion dn/dT

D_0	$3.50 \cdot 10^{-6}$
D_1	$1.22 \cdot 10^{-8}$
D_2	$6.38 \cdot 10^{-11}$
E_0	$2.46 \cdot 10^{-7}$
E_1	$-3.34 \cdot 10^{-11}$
λ_{TK} [µm]	0.278

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.680	0.380
2325	0.840	0.640
1970	0.963	0.910
1530	0.992	0.980
1060	0.999	0.997
700	0.998	0.995
660	0.998	0.994
620	0.997	0.993
580	0.998	0.995
546	0.998	0.996
500	0.998	0.994
460	0.996	0.989
436	0.995	0.987
420	0.994	0.986
405	0.993	0.983
400	0.992	0.981
390	0.988	0.971
380	0.984	0.960
370	0.976	0.940
365	0.971	0.930
350	0.920	0.820
334	0.800	0.580
320	0.590	0.270
310	0.400	0.100
300	0.210	0.020
290	0.090	
280	0.030	
270		
260		
250		

Color Code

λ_{80}/λ_5	34/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2904
$P_{C,s}$	0.5460
$P_{d,C}$	0.3055
$P_{e,d}$	0.2386
$P_{g,F}$	0.5400
$P_{i,h}$	0.7591
$P'_{s,t}$	0.2881
$P'_{C',s}$	0.5901
$P'_{d,C'}$	0.2547
$P'_{e,d}$	0.2367
$P'_{g,F'}$	0.4796
$P'_{i,h}$	0.7531

Deviation of Relative Partial Dispersions ΔP from the "Normal Line"

$\Delta P_{C,t}$	0.0008
$\Delta P_{C,s}$	0.0003
$\Delta P_{F,e}$	-0.0002
$\Delta P_{g,F}$	-0.0007
$\Delta P_{i,g}$	-0.0045

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.5
T_g [°C]	660
$T_{10}^{13.0}$ [°C]	657
$T_{10}^{7.6}$ [°C]	791
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.990
ρ [g/cm^3]	3.30
E [10^3 N/mm^2]	84
μ	0.256
K [10^{-6} mm^2/N]	2.16
HK$_{0.1/20}$	590
HG	3
CR	3
FR	1
SR	4.4
AR	2
PR	1.3

Temperature Coefficients of 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	3.5	4.0	4.6	1.4	1.9	2.4
+20/ +40	3.2	3.7	4.3	1.9	2.3	2.9
+60/ +80	3.6	4.1	4.7	2.6	3.0	3.6