Data Sheet

SCHOTT

N-K5
522595.259

$n_d = 1.52249$	$\nu_d = 59.48$	$n_F - n_C = 0.008784$
$n_e = 1.52458$	$\nu_e = 59.22$	$n_{F'} - n_{C'} = 0.008858$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.49656
$n_{1970.1}$	1970.1	1.50146
$n_{1529.6}$	1529.6	1.50664
$n_{1060.0}$	1060.0	1.51197
n_t	1014.0	1.51257
n_s	852.1	1.51507
n_r	706.5	1.51829
n_C	656.3	1.51982
$n_{C'}$	643.8	1.52024
$n_{632.8}$	632.8	1.52064
n_D	589.3	1.52241
n_d	587.6	1.52249
n_e	546.1	1.52458
n_F	486.1	1.52860
$n_{F'}$	480.0	1.52910
n_g	435.8	1.53338
n_h	404.7	1.53734
n_i	365.0	1.54412
$n_{334.1}$	334.1	1.55145
$n_{312.6}$	312.6	1.55821
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.08511833
B_2	0.199562005
B_3	0.930511663
C_1	0.00661099503
C_2	0.024110866
C_3	111.982777

Constants of Dispersion dn/dT

D_0	$-4.13 \cdot 10^{-7}$
D_1	$1.03 \cdot 10^{-8}$
D_2	$-3.40 \cdot 10^{-11}$
E_0	$4.73 \cdot 10^{-7}$
E_1	$5.19 \cdot 10^{-10}$
λ_{TK} [µm]	0.213

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.776	0.530
2325	0.847	0.660
1970	0.946	0.870
1530	0.994	0.986
1060	0.998	0.995
700	0.998	0.994
660	0.997	0.992
620	0.997	0.993
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.996	0.991
436	0.996	0.991
420	0.996	0.991
405	0.996	0.989
400	0.995	0.988
390	0.994	0.984
380	0.991	0.977
370	0.985	0.962
365	0.982	0.956
350	0.950	0.880
334	0.831	0.630
320	0.536	0.210
310	0.221	0.020
300	0.058	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2843
$P_{C,s}$	0.5404
$P_{d,C}$	0.3044
$P_{e,d}$	0.2384
$P_{g,F}$	0.5438
$P_{i,h}$	0.7717
$P'_{s,t}$	0.2819
$P'_{C',s}$	0.5839
$P'_{d,C'}$	0.2538
$P'_{e,d}$	0.2364
$P'_{g,F'}$	0.4828
$P'_{i,h}$	0.7653

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

$\Delta P_{C,t}$	-0.0025
$\Delta P_{C,s}$	-0.0012
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0000
$\Delta P_{i,g}$	-0.0019

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.6
T_g [°C]	546
$T_{10}^{13.0}$ [°C]	540
$T_{10}^{7.6}$ [°C]	720
c_p [J/(g·K)]	0.783
λ [W/(m·K)]	0.950
ρ [g/cm^3]	2.59
E [10^3 N/mm^2]	71
μ	0.224
K [10^{-6} mm^2/N]	3.03
HK$_{0.1/20}$	530
HG	3
CR	1
FR	0
SR	1
AR	1
PR	1

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	1.5	2.1	2.6	-0.6	0.0	0.5
+20/ +40	1.4	2.1	2.7	0.1	0.7	1.4
+60/ +80	1.4	2.1	2.8	0.4	1.1	1.8