Data Sheet

SCHOTT

N-KF9
523515.250

n_d = 1.52346	ν_d = 51.54	$n_F - n_C$ = 0.010156
n_e = 1.52588	ν_e = 51.26	$n_{F'} - n_{C'}$ = 0.010258

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.49608
$n_{1970.1}$	1970.1	1.50095
$n_{1529.6}$	1529.6	1.50616
$n_{1060.0}$	1060.0	1.51170
n_t	1014.0	1.51234
n_s	852.1	1.51507
n_r	706.5	1.51867
n_C	656.3	1.52040
$n_{C'}$	643.8	1.52089
$n_{632.8}$	632.8	1.52134
n_D	589.3	1.52337
n_d	587.6	1.52346
n_e	546.1	1.52588
n_F	486.1	1.53056
$n_{F'}$	480.0	1.53114
n_g	435.8	1.53620
n_h	404.7	1.54096
n_i	365.0	1.54925
$n_{334.1}$	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	1.19286778
B_2	0.0893346571
B_3	0.920819805
C_1	0.00839154696
C_2	0.0404010786
C_3	112.572446

Constants of Dispersion dn/dT

D_0	$-1.66 \cdot 10^{-6}$
D_1	$8.44 \cdot 10^{-9}$
D_2	$-1.01 \cdot 10^{-11}$
E_0	$6.10 \cdot 10^{-7}$
E_1	$6.96 \cdot 10^{-10}$
λ_{TK} [µm]	0.217

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.618	0.300
2325	0.713	0.430
1970	0.887	0.740
1530	0.992	0.981
1060	0.998	0.995
700	0.999	0.997
660	0.998	0.995
620	0.998	0.994
580	0.998	0.996
546	0.998	0.996
500	0.998	0.994
460	0.996	0.990
436	0.995	0.988
420	0.994	0.985
405	0.990	0.975
400	0.986	0.965
390	0.976	0.940
380	0.950	0.880
370	0.901	0.770
365	0.857	0.680
350	0.536	0.210
334	0.026	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2683
$P_{C,s}$	0.5249
$P_{d,C}$	0.3012
$P_{e,d}$	0.2380
$P_{g,F}$	0.5558
$P_{i,h}$	0.8161
$P'_{s,t}$	0.2657
$P'_{C',s}$	0.5669
$P'_{d,C'}$	0.2509
$P'_{e,d}$	0.2356
$P'_{g,F'}$	0.4930
$P'_{i,h}$	0.8080

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

$\Delta P_{C,t}$	0.0038
$\Delta P_{C,s}$	0.0018
$\Delta P_{F,e}$	-0.0004
$\Delta P_{g,F}$	-0.0014
$\Delta P_{i,g}$	-0.0075

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	11.0
T_g [°C]	476
$T_{10^{13.0}}$ [°C]	476
$T_{10^{7.6}}$ [°C]	640
c_p [J/(g·K)]	0.860
λ [W/(m·K)]	1.040
ρ [g/cm^3]	2.50
E [10^3 N/mm^2]	66
µ	0.225
K [10^{-6} mm^2/N]	2.74
$HK_{0.1/20}$	480
HG	1
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	1.1	1.9	2.6	-0.9	-0.2	0.5
+20/ +40	0.9	1.8	2.6	-0.4	0.4	1.3
+60/ +80	0.9	1.8	2.8	-0.1	0.8	1.7