Data Sheet

SCHOTT

N-SSK8
618498.327

$n_d = 1.61773$	$\nu_d = 49.83$	$n_F - n_C = 0.012397$
$n_e = 1.62068$	$\nu_e = 49.54$	$n_{F'} - n_{C'} = 0.012529$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58594
$n_{1970.1}$	1970.1	1.59137
$n_{1529.6}$	1529.6	1.59723
$n_{1060.0}$	1060.0	1.60360
n_t	1014.0	1.60436
n_s	852.1	1.60759
n_r	706.5	1.61192
n_C	656.3	1.61401
$n_{C'}$	643.8	1.61460
$n_{632.8}$	632.8	1.61515
n_D	589.3	1.61762
n_d	587.6	1.61773
n_e	546.1	1.62068
n_F	486.1	1.62641
$n_{F'}$	480.0	1.62713
n_g	435.8	1.63335
n_h	404.7	1.63923
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	1.44857867
B_2	0.117965926
B_3	1.06937528
C_1	0.00869310149
C_2	0.0421566593
C_3	111.300666

Constants of Dispersion dn/dT

D_0	$5.34 \cdot 10^{-7}$
D_1	$1.27 \cdot 10^{-8}$
D_2	$-1.75 \cdot 10^{-11}$
E_0	$5.40 \cdot 10^{-7}$
E_1	$7.05 \cdot 10^{-10}$
λ_{TK} [µm]	0.224

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.733	0.460
2325	0.847	0.660
1970	0.959	0.900
1530	0.992	0.980
1060	0.997	0.993
700	0.998	0.994
660	0.996	0.991
620	0.996	0.990
580	0.997	0.992
546	0.997	0.992
500	0.994	0.984
460	0.987	0.969
436	0.982	0.955
420	0.975	0.938
405	0.959	0.900
400	0.950	0.880
390	0.919	0.810
380	0.847	0.660
370	0.727	0.450
365	0.626	0.310
350	0.194	0.010
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2606
$P_{C,s}$	0.5179
$P_{d,C}$	0.2999
$P_{e,d}$	0.2378
$P_{g,F}$	0.5602
$P_{i,h}$	
$P'_{s,t}$	0.2579
$P'_{C',s}$	0.5594
$P'_{d,C'}$	0.2498
$P'_{e,d}$	0.2353
$P'_{g,F'}$	0.4967
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0028
$\Delta P_{C,s}$	-0.0012
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.2
T_g [°C]	616
$T_{10}^{13.0}$ [°C]	604
$T_{10}^{7.6}$ [°C]	742
c_p [J/(g·K)]	0.640
λ [W/(m·K)]	0.840
ρ [g/cm^3]	3.27
E [10^3 N/mm^2]	84
μ	0.251
K [10^{-6} mm^2/N]	2.36
HK$_{0.1/20}$	570
HG	3
CR	1
FR	0
SR	1
AR	1.3
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	1.9	2.7	3.5	-0.2	0.5	1.3
+20/ +40	2.0	2.9	3.9	0.6	1.5	2.4
+60/ +80	2.2	3.2	4.2	1.1	2.1	3.1