Data Sheet

SCHOTT

N-LAK8
713538.375

$n_d = 1.71300$	$\nu_d = 53.83$	$n_F - n_C = 0.013245$
$n_e = 1.71616$	$\nu_e = 53.61$	$n_{F'} - n_{C'} = 0.013359$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67294
$n_{1970.1}$	1970.1	1.68075
$n_{1529.6}$	1529.6	1.68890
$n_{1060.0}$	1060.0	1.69710
n_t	1014.0	1.69802
n_s	852.1	1.70181
n_r	706.5	1.70668
n_C	656.3	1.70897
$n_{C'}$	643.8	1.70962
$n_{632.8}$	632.8	1.71022
n_D	589.3	1.71289
n_d	587.6	1.71300
n_e	546.1	1.71616
n_F	486.1	1.72222
$n_{F'}$	480.0	1.72297
n_g	435.8	1.72944
n_h	404.7	1.73545
n_i	365.0	1.74573
$n_{334.1}$	334.1	1.75687
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.33183167
B_2	0.546623206
B_3	1.19084015
C_1	0.00620023871
C_2	0.0216465439
C_3	82.5827736

Constants of Dispersion dn/dT

D_0	$4.10 \cdot 10^{-6}$
D_1	$1.25 \cdot 10^{-8}$
D_2	$-1.60 \cdot 10^{-11}$
E_0	$4.30 \cdot 10^{-7}$
E_1	$6.29 \cdot 10^{-10}$
λ_{TK} [µm]	0.213

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.707	0.420
1970	0.950	0.880
1530	0.992	0.979
1060	0.998	0.994
700	0.998	0.996
660	0.998	0.995
620	0.998	0.994
580	0.998	0.994
546	0.998	0.995
500	0.998	0.994
460	0.995	0.987
436	0.992	0.979
420	0.988	0.970
405	0.981	0.952
400	0.977	0.943
390	0.965	0.915
380	0.946	0.870
370	0.905	0.780
365	0.877	0.720
350	0.739	0.470
334	0.509	0.185
320	0.276	0.040
310	0.137	0.010
300	0.044	
290	0.010	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2861
$P_{C,s}$	0.5408
$P_{d,C}$	0.3042
$P_{e,d}$	0.2383
$P_{g,F}$	0.5450
$P_{i,h}$	0.7764
$P'_{s,t}$	0.2836
$P'_{C',s}$	0.5843
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2363
$P'_{g,F'}$	0.4838
$P'_{i,h}$	0.7698

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

$\Delta P_{C,t}$	0.0266
$\Delta P_{C,s}$	0.0124
$\Delta P_{F,e}$	-0.0026
$\Delta P_{g,F}$	-0.0083
$\Delta P_{i,g}$	-0.0428

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	643
$T_{10}^{13.0}$ [°C]	635
$T_{10}^{7.6}$ [°C]	717
c_p [J/(g·K)]	0.620
λ [W/(m·K)]	0.840
ρ [g/cm^3]	3.75
E [10^3 N/mm^2]	115
μ	0.289
K [10^{-6} mm^2/N]	1.81
$HK_{0.1/20}$	740
HG	2
CR	3
FR	2
SR	52.3
AR	1
PR	3.3

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	4.0	4.7	5.4	1.7	2.4	3.0
+20/ +40	4.1	5.0	5.8	2.6	3.5	4.3
+60/ +80	4.3	5.2	6.2	3.1	4.1	5.0