Data Sheet

SCHOTT

N-LAK10
720506.369

$n_d = 1.72003$	$\nu_d = 50.62$	$n_F - n_C = 0.014224$
$n_e = 1.72341$	$\nu_e = 50.39$	$n_{F'} - n_{C'} = 0.014357$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67890
$n_{1970.1}$	1970.1	1.68670
$n_{1529.6}$	1529.6	1.69488
$n_{1060.0}$	1060.0	1.70324
n_t	1014.0	1.70419
n_s	852.1	1.70815
n_r	706.5	1.71328
n_C	656.3	1.71572
$n_{C'}$	643.8	1.71641
$n_{632.8}$	632.8	1.71705
n_D	589.3	1.71990
n_d	587.6	1.72003
n_e	546.1	1.72341
n_F	486.1	1.72995
$n_{F'}$	480.0	1.73077
n_g	435.8	1.73779
n_h	404.7	1.74438
n_i	365.0	1.75578
$n_{334.1}$	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	1.72878017
B_2	0.169257825
B_3	1.19386956
C_1	0.00886014635
C_2	0.0363416509
C_3	82.9009069

Constants of Dispersion dn/dT

D_0	$4.10 \cdot 10^{-6}$
D_1	$1.23 \cdot 10^{-8}$
D_2	$-7.85 \cdot 10^{-12}$
E_0	$5.08 \cdot 10^{-7}$
E_1	$5.76 \cdot 10^{-10}$
λ_{TK} [µm]	0.205

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.428	0.120
2325	0.720	0.440
1970	0.950	0.880
1530	0.991	0.977
1060	0.998	0.995
700	0.999	0.995
660	0.998	0.994
620	0.998	0.994
580	0.997	0.993
546	0.998	0.994
500	0.995	0.988
460	0.991	0.977
436	0.985	0.963
420	0.976	0.940
405	0.963	0.910
400	0.959	0.900
390	0.937	0.850
380	0.901	0.770
370	0.831	0.630
365	0.770	0.520
350	0.442	0.130
334	0.026	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2779
$P_{C,s}$	0.5328
$P_{d,C}$	0.3025
$P_{e,d}$	0.2381
$P_{g,F}$	0.5515
$P_{i,h}$	0.8015
$P'_{s,t}$	0.2753
$P'_{C',s}$	0.5755
$P'_{d,C'}$	0.2521
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4894
$P'_{i,h}$	0.7941

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

$\Delta P_{C,t}$	0.0256
$\Delta P_{C,s}$	0.0119
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0072
$\Delta P_{i,g}$	-0.0354

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.8
T_g [°C]	636
$T_{10}^{13.0}$ [°C]	631
$T_{10}^{7.6}$ [°C]	714
c_p [J/(g·K)]	0.640
λ [W/(m·K)]	0.860
ρ [g/cm^3]	3.69
E [10^3 N/mm^2]	116
μ	0.286
K [10^{-6} mm^2/N]	1.97
HK$_{0.1/20}$	780
HG	2
CR	2
FR	2
SR	52.3
AR	1
PR	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	4.1	5.0	5.8	1.8	2.6	3.4
+20/ +40	4.2	5.1	6.1	2.7	3.6	4.6
+60/ +80	4.4	5.4	6.5	3.2	4.3	5.3