Data Sheet

SCHOTT

N-LAK21
640601.374

$n_d = 1.64049$	$\nu_d = 60.10$	$n_F - n_C = 0.010657$
$n_e = 1.64304$	$\nu_e = 59.86$	$n_{F'} - n_{C'} = 0.010743$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.60776
$n_{1970.1}$	1970.1	1.61416
$n_{1529.6}$	1529.6	1.62086
$n_{1060.0}$	1060.0	1.62759
n_t	1014.0	1.62834
n_s	852.1	1.63143
n_r	706.5	1.63538
n_C	656.3	1.63724
$n_{C'}$	643.8	1.63776
$n_{632.8}$	632.8	1.63825
n_D	589.3	1.64040
n_d	587.6	1.64049
n_e	546.1	1.64304
n_F	486.1	1.64790
$n_{F'}$	480.0	1.64850
n_g	435.8	1.65366
n_h	404.7	1.65844
n_i	365.0	1.66657
$n_{334.1}$	334.1	1.67532
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.22718116
B_2	0.420783743
B_3	1.01284843
C_1	0.00602075682
C_2	0.0196862889
C_3	88.4370099

Constants of Dispersion dn/dT

D_0	$-2.36 \cdot 10^{-6}$
D_1	$1.15 \cdot 10^{-8}$
D_2	$1.11 \cdot 10^{-11}$
E_0	$3.10 \cdot 10^{-7}$
E_1	$2.78 \cdot 10^{-10}$
λ_{TK} [µm]	0.234

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.536	0.210
2325	0.752	0.490
1970	0.946	0.870
1530	0.988	0.970
1060	0.998	0.994
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	0.995	0.988
460	0.990	0.976
436	0.987	0.969
420	0.985	0.963
405	0.982	0.955
400	0.979	0.950
390	0.971	0.930
380	0.959	0.900
370	0.928	0.830
365	0.905	0.780
350	0.799	0.570
334	0.565	0.240
320	0.250	0.040
310	0.060	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/31
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2900
$P_{C,s}$	0.5453
$P_{d,C}$	0.3052
$P_{e,d}$	0.2385
$P_{g,F}$	0.5411
$P_{i,h}$	0.7630
$P'_{s,t}$	0.2877
$P'_{C',s}$	0.5892
$P'_{d,C'}$	0.2545
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4804
$P'_{i,h}$	0.7569

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

$\Delta P_{C,t}$	0.0052
$\Delta P_{C,s}$	0.0023
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0017
$\Delta P_{i,g}$	-0.0090

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.1
T_g [°C]	639
$T_{10}^{13.0}$ [°C]	627
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	0.590
λ [W/(m·K)]	0.880
ρ [g/cm^3]	3.74
E [10^3 N/mm^2]	91
μ	0.272
K [10^{-6} mm^2/N]	1.74
HK$_{0.1/20}$	600
HG	5
CR	4
FR	2
SR	53.2
AR	4.3
PR	4.3

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	0.6	1.1	1.6	-1.6	-1.2	-0.7
+20/ +40	0.5	1.0	1.6	-0.9	-0.4	0.1
+60/ +80	0.7	1.3	1.9	-0.4	0.1	0.7