Data Sheet

SCHOTT

N-LAK9
691547.351

$n_d = 1.69100$	$\nu_d = 54.71$	$n_F - n_C = 0.012631$
$n_e = 1.69401$	$\nu_e = 54.48$	$n_{F'} - n_{C'} = 0.012738$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.65294
$n_{1970.1}$	1970.1	1.66032
$n_{1529.6}$	1529.6	1.66804
$n_{1060.0}$	1060.0	1.67584
n_t	1014.0	1.67672
n_s	852.1	1.68033
n_r	706.5	1.68497
n_C	656.3	1.68716
$n_{C'}$	643.8	1.68777
$n_{632.8}$	632.8	1.68834
n_D	589.3	1.69089
n_d	587.6	1.69100
n_e	546.1	1.69401
n_F	486.1	1.69979
$n_{F'}$	480.0	1.70051
n_g	435.8	1.70667
n_h	404.7	1.71239
n_i	365.0	1.72219
$n_{334.1}$	334.1	1.73281
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.46231905
B_2	0.344399589
B_3	1.15508372
C_1	0.00724270156
C_2	0.0243353131
C_3	85.4686868

Constants of Dispersion dn/dT

D_0	$2.11 \cdot 10^{-6}$
D_1	$1.11 \cdot 10^{-8}$
D_2	$1.82 \cdot 10^{-12}$
E_0	$4.74 \cdot 10^{-7}$
E_1	$-3.47 \cdot 10^{-10}$
λ_{TK} [µm]	0.146

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.455	0.140
2325	0.707	0.420
1970	0.941	0.860
1530	0.986	0.966
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.994
546	0.998	0.994
500	0.997	0.992
460	0.994	0.984
436	0.991	0.977
420	0.988	0.970
405	0.983	0.957
400	0.980	0.950
390	0.971	0.930
380	0.954	0.890
370	0.928	0.830
365	0.906	0.782
350	0.787	0.550
334	0.525	0.200
320	0.209	0.020
310	0.070	
300	0.014	
290	0.001	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/31
(*= λ_{70}/λ_5)	

Remarks

step 0.5 available

Relative Partial Dispersion

$P_{s,t}$	0.2859
$P_{C,s}$	0.5409
$P_{d,C}$	0.3043
$P_{e,d}$	0.2384
$P_{g,F}$	0.5447
$P_{i,h}$	0.7756
$P'_{s,t}$	0.2834
$P'_{C',s}$	0.5844
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2363
$P'_{g,F'}$	0.4835
$P'_{i,h}$	0.7690

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

$\Delta P_{C,t}$	0.0223
$\Delta P_{C,s}$	0.0105
$\Delta P_{F,e}$	-0.0023
$\Delta P_{g,F}$	-0.0071
$\Delta P_{i,g}$	-0.0367

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.5
T_g [°C]	656
$T_{10}^{13.0}$ [°C]	645
$T_{10}^{7.6}$ [°C]	722
c_p [J/(g·K)]	0.649
λ [W/(m·K)]	0.908
ρ [g/cm^3]	3.51
E [10^3 N/mm^2]	110
μ	0.285
K [10^{-6} mm^2/N]	1.83
HK$_{0.1/20}$	700
HG	3
CR	3
FR	3
SR	52
AR	1.2
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	3.0	3.9	4.6	0.8	1.6	2.3
+20/ +40	2.9	3.7	4.4	1.5	2.2	2.9
+60/ +80	3.1	3.8	4.4	2.0	2.7	3.3