Data Sheet

SCHOTT

N-LAK7
652585.384

n_d = 1.65160	ν_d = 58.52	$n_F - n_C$ = 0.011135
n_e = 1.65425	ν_e = 58.26	$n_{F'} - n_{C'}$ = 0.011229

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61875
$n_{1970.1}$	1970.1	1.62499
$n_{1529.6}$	1529.6	1.63156
$n_{1060.0}$	1060.0	1.63828
n_t	1014.0	1.63904
n_s	852.1	1.64220
n_r	706.5	1.64628
n_C	656.3	1.64821
$n_{C'}$	643.8	1.64875
$n_{632.8}$	632.8	1.64925
n_D	589.3	1.65150
n_d	587.6	1.65160
n_e	546.1	1.65425
n_F	486.1	1.65934
$n_{F'}$	480.0	1.65998
n_g	435.8	1.66539
n_h	404.7	1.67042
n_i	365.0	1.67897
$n_{334.1}$	334.1	1.68820
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.23679889
B_2	0.445051837
B_3	1.017458880
C_1	0.00610105538
C_2	0.0201388334
C_3	90.6380380

Constants of Formula for dn/dT

D_0	-3.40E-06
D_1	1.17E-08
D_2	2.38E-11
E_0	4.96E-07
E_1	4.44E-10
λ_{TK} [µm]	0.107

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.550	0.220
2325	0.750	0.490
1970	0.940	0.860
1530	0.989	0.972
1060	0.999	0.998
700	0.999	0.997
660	0.998	0.996
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.994	0.984
436	0.992	0.980
420	0.991	0.977
405	0.989	0.973
400	0.988	0.970
390	0.984	0.961
380	0.978	0.950
370	0.966	0.920
365	0.956	0.890
350	0.910	0.790
334	0.800	0.570
320	0.620	0.300
310	0.420	0.110
300	0.190	0.020
290	0.050	0.000
280	0.000	
270		
260		
250		

Color Code

λ_{80} / λ_5	35/29

(*= λ_{70}/λ_5)

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2835
$P_{C,s}$	0.5400
$P_{d,C}$	0.3044
$P_{e,d}$	0.2385
$P_{g,F}$	0.5433
$P_{i,h}$	0.7687
$P'_{s,t}$	0.2812
$P'_{C',s}$	0.5836
$P'_{d,C'}$	0.2538
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4823
$P'_{i,h}$	0.7622

Deviation of Relative Partial Dispersion ΔP from the normal line

$\Delta P_{C,t}$	0.0010
$\Delta P_{C,s}$	0.0007
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0021
$\Delta P_{i,g}$	-0.0140

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.2
T_g [°C]	618
$T_{10^{13}}$ [°C]	626
$T_{10^{7.6}}$ [°C]	716
c_p [J/(g*K)]	0.530
λ [W/(m•K)]	0.740
ρ [g/cm^3]	3.84
E [10^3 N/mm^2]	90
µ	0.277
K [10^{-6} mm^2/N]	1.65
$HK_{0.1/20}$	600
HG	5
CR	3
FR	2
SR	53.3
AR	3.3
PR	4.3

Temperature Coefficients of the 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	0.2	0.8	1.3	-2.0	-1.5	-1.0
+20/+40	0.0	0.7	1.3	-1.4	-0.7	-0.2
+60/+80	0.3	1.0	1.7	-0.8	-0.1	0.5