Data Sheet

SCHOTT

N-LAK33B
755523.422

$n_d = 1.75500$	$\nu_d = 52.30$	$n_F - n_C = 0.014436$
$n_e = 1.75844$	$\nu_e = 52.07$	$n_{F'} - n_{C'} = 0.014566$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.71387
$n_{1970.1}$	1970.1	1.72155
$n_{1529.6}$	1529.6	1.72962
$n_{1060.0}$	1060.0	1.73796
n_t	1014.0	1.73892
n_s	852.1	1.74292
n_r	706.5	1.74814
n_C	656.3	1.75062
$n_{C'}$	643.8	1.75132
$n_{632.8}$	632.8	1.75197
n_D	589.3	1.75487
n_d	587.6	1.75500
n_e	546.1	1.75844
n_F	486.1	1.76506
$n_{F'}$	480.0	1.76589
n_g	435.8	1.77296
n_h	404.7	1.77954
n_i	365.0	1.79082
$n_{334.1}$	334.1	1.80306
$n_{312.6}$	312.6	1.81436
$n_{296.7}$	296.7	1.82471
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.42288601
B_2	0.593661336
B_3	1.1613526
C_1	0.00670283452
C_2	0.021941621
C_3	80.7407701

Constants of Dispersion dn/dT

D_0	$2.77 \cdot 10^{-6}$
D_1	$1.24 \cdot 10^{-8}$
D_2	$1.22 \cdot 10^{-11}$
E_0	$5.19 \cdot 10^{-7}$
E_1	$6.02 \cdot 10^{-10}$
λ_{TK} [µm]	0.184

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.679	0.380
1970	0.937	0.850
1530	0.985	0.963
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.994
620	0.997	0.993
580	0.998	0.994
546	0.998	0.995
500	0.997	0.993
460	0.994	0.986
436	0.992	0.979
420	0.988	0.971
405	0.982	0.956
400	0.980	0.950
390	0.971	0.930
380	0.954	0.890
370	0.928	0.830
365	0.910	0.790
350	0.821	0.610
334	0.657	0.350
320	0.455	0.140
310	0.283	0.030
300	0.217	0.010
290	0.118	
280	0.022	
270		
260		
250		

Color Code

λ_{80}/λ_5	37/28
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2768
$P_{C,s}$	0.5337
$P_{d,C}$	0.3032
$P_{e,d}$	0.2383
$P_{g,F}$	0.5473
$P_{i,h}$	0.7813
$P'_{s,t}$	0.2744
$P'_{C',s}$	0.5767
$P'_{d,C'}$	0.2527
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4857
$P'_{i,h}$	0.7743

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

$\Delta P_{C,t}$	0.0175
$\Delta P_{C,s}$	0.0089
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0085
$\Delta P_{i,g}$	-0.0484

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.1
T_g [°C]	668
$T_{10}^{13.0}$ [°C]	670
$T_{10}^{7.6}$ [°C]	750
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.890
AT [°C]	702
ρ [g/cm^3]	4.22
E [10^3 N/mm^2]	122
μ	0.295
K [10^{-6} mm^2/N]	1.43
HK$_{0.1/20}$	797
HG	
CR	1
FR	1
SR	51.3
AR	1
PR	2
SR-J	4
WR-J	1

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	3.5	4.4	5.2	1.2	2.0	2.8
+20/ +40	3.5	4.5	5.4	2.0	3.0	3.9
+60/ +80	3.9	4.9	5.9	2.7	3.7	4.7