Datasheet

SCHOTT
glass made of ideas

N-LAK34
729545.402

n_d = 1.72916	ν_d = 54.50	$n_F - n_C$ = 0.013379
n_e = 1.73235	ν_e = 54.27	$n_{F'} - n_{C'}$ = 0.013493

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.68925
$n_{1970.1}$	1970.1	1.69695
$n_{1529.6}$	1529.6	1.70500
$n_{1060.0}$	1060.0	1.71315
n_t	1014.0	1.71407
n_s	852.1	1.71787
n_r	706.5	1.72277
n_C	656.3	1.72509
$n_{C'}$	643.8	1.72574
$n_{632.8}$	632.8	1.72634
n_D	589.3	1.72904
n_d	587.6	1.72916
n_e	546.1	1.73235
n_F	486.1	1.73847
$n_{F'}$	480.0	1.73923
n_g	435.8	1.74575
n_h	404.7	1.75180
n_i	365.0	1.76214
$n_{334.1}$	334.1	1.77331
$n_{312.6}$	312.6	1.78359
$n_{296.7}$	296.7	1.79296
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.266614420
B_2	0.665919318
B_3	1.124961200
C_1	0.005892781
C_2	0.0197509041
C_3	78.88941740

Constants of Formula for dn/dT

D_0	1.96E-06
D_1	9.65E-09
D_2	4.40E-12
E_0	4.91E-07
E_1	5.28E-10
λ_{TK} [µm]	0.161

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.400	0.100
2325	0.670	0.370
1970	0.940	0.850
1530	0.984	0.960
1060	0.998	0.995
700	0.999	0.997
660	0.999	0.997
620	0.998	0.996
580	0.998	0.995
546	0.999	0.997
500	0.998	0.994
460	0.995	0.987
436	0.992	0.979
420	0.989	0.972
405	0.983	0.959
400	0.981	0.952
390	0.976	0.940
380	0.963	0.910
370	0.940	0.860
365	0.920	0.820
350	0.850	0.670
334	0.710	0.430
320	0.530	0.200
310	0.380	0.070
300	0.280	0.030
290	0.170	0.010
280	0.070	
270	0.010	
260		
250		

Color Code

λ80 / λ5	37/28

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2841
$P_{C,s}$	0.5398
$P_{d,C}$	0.3042
$P_{e,d}$	0.2384
$P_{g,F}$	0.5443
$P_{i,h}$	0.7726

Relative Partial Dispersion P'

$P'_{s,t}$	0.2817
$P'_{C',s}$	0.5833
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2364
$P'_{g,F'}$	0.4832
$P'_{i,h}$	0.7661

Deviation of Rel. Partial Disp. ΔP from the normal line

$\Delta P_{C,t}$	0.0204
$\Delta P_{C,s}$	0.0099
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0079
$\Delta P_{i,g}$	-0.0423

Chemical Properties

CR	1
FR	0
SR	52.3
AR	1
PR	2.3

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.9
T_g [°C]	668
T_{10}^{13} [°C]	668
$T_{10}^{7.6}$ [°C]	740
c_p [J/(g*K)]	0.520
λ [W/(m•K)]	0.820
ρ [g/cm³]	4.02
E [10^3 N/mm²]	117
µ	0.290
K [10^{-6} mm²/N]	1.52
$HK_{0.1/20}$	740
HG	2

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	3.1	3.9	4.6	0.8	1.5	2.2
+20/+40	3.0	3.8	4.6	1.5	2.3	3.1
+60/+80	3.1	4.0	4.9	2.0	2.9	3.7