Datasheet

SCHOTT
glass made of ideas

N-LAK8
713538.375

n_d = 1.71300	ν_d = 53.83	$n_F - n_C$ = 0.013245
n_e = 1.71616	ν_e = 53.61	$n_{F'} - n_{C'}$ = 0.013359

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67294
$n_{1970.1}$	1970.1	1.68075
$n_{1529.6}$	1529.6	1.68890
$n_{1060.0}$	1060.0	1.69710
n_t	1014.0	1.69802
n_s	852.1	1.70181
n_r	706.5	1.70668
n_C	656.3	1.70897
$n_{C'}$	643.8	1.70962
$n_{632.8}$	632.8	1.71022
n_D	589.3	1.71289
n_d	587.6	1.71300
n_e	546.1	1.71616
n_F	486.1	1.72222
$n_{F'}$	480.0	1.72297
n_g	435.8	1.72944
n_h	404.7	1.73545
n_i	365.0	1.74573
$n_{334.1}$	334.1	1.75687
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.331831670
B_2	0.546623206
B_3	1.190840150
C_1	0.006200239
C_2	0.0216465439
C_3	82.58277360

Constants of Formula for dn/dT

D_0	4.10E-06
D_1	1.25E-08
D_2	-1.60E-11
E_0	4.30E-07
E_1	6.29E-10
λ_{TK} [µm]	0.213

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.400	0.100
2325	0.710	0.420
1970	0.950	0.880
1530	0.992	0.979
1060	0.998	0.994
700	0.998	0.996
660	0.998	0.995
620	0.998	0.994
580	0.998	0.994
546	0.998	0.995
500	0.998	0.994
460	0.995	0.987
436	0.992	0.979
420	0.988	0.970
405	0.981	0.952
400	0.977	0.940
390	0.965	0.920
380	0.950	0.870
370	0.910	0.780
365	0.880	0.720
350	0.740	0.470
334	0.510	0.190
320	0.280	0.040
310	0.140	0.010
300	0.040	
290	0.010	
280		
270		
260		
250		

Color Code

λ80 / λ5	37/30

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2861
$P_{C,s}$	0.5408
$P_{d,C}$	0.3042
$P_{e,d}$	0.2383
$P_{g,F}$	0.5450
$P_{i,h}$	0.7764

Relative Partial Dispersion P'

$P'_{s,t}$	0.2836
$P'_{C',s}$	0.5843
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2363
$P'_{g,F'}$	0.4838
$P'_{i,h}$	0.7698

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

$\Delta P_{C,t}$	0.0266
$\Delta P_{C,s}$	0.0124
$\Delta P_{F,e}$	-0.0026
$\Delta P_{g,F}$	-0.0083
$\Delta P_{i,g}$	-0.0428

Chemical Properties

CR	3
FR	2
SR	52.3
AR	1
PR	3.3

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	643
$T_{10^{13}}$ [°C]	635
$T_{10^{7.6}}$ [°C]	717
c_p [J/(g*K)]	0.620
λ [W/(m•K)]	0.840
ρ [g/cm³]	3.75
E [10^3 N/mm²]	115
µ	0.289
K [10^{-6} mm²/N]	1.81
$HK_{0.1/20}$	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	4.0	4.7	5.4	1.7	2.4	3.0
+20/+40	4.1	5.0	5.8	2.6	3.5	4.3
+60/+80	4.3	5.2	6.2	3.1	4.1	5.0