Datasheet

SCHOTT
glass made of ideas

N-LAK10
720506.369

n_d = 1.72003	ν_d = 50.62	$n_F - n_C$ = 0.014224
n_e = 1.72341	ν_e = 50.39	$n_{F'} - n_{C'}$ = 0.014357

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67890
$n_{1970.1}$	1970.1	1.68670
$n_{1529.6}$	1529.6	1.69488
$n_{1060.0}$	1060.0	1.70324
n_t	1014.0	1.70419
n_s	852.1	1.70815
n_r	706.5	1.71328
n_C	656.3	1.71572
$n_{C'}$	643.8	1.71641
$n_{632.8}$	632.8	1.71705
n_D	589.3	1.71990
n_d	587.6	1.72003
n_e	546.1	1.72341
n_F	486.1	1.72995
$n_{F'}$	480.0	1.73077
n_g	435.8	1.73779
n_h	404.7	1.74438
n_i	365.0	1.75578
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.728780170
B_2	0.169257825
B_3	1.193869560
C_1	0.008860146
C_2	0.0363416509
C_3	82.90090690

Constants of Formula for dn/dT

D_0	4.10E-06
D_1	1.23E-08
D_2	-7.85E-12
E_0	5.08E-07
E_1	5.76E-10
λ_{TK} [µm]	0.205

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.430	0.120
2325	0.720	0.440
1970	0.950	0.880
1530	0.991	0.977
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.994
620	0.998	0.994
580	0.997	0.993
546	0.998	0.994
500	0.995	0.988
460	0.991	0.977
436	0.988	0.970
420	0.980	0.951
405	0.970	0.930
400	0.964	0.910
390	0.950	0.880
380	0.920	0.810
370	0.860	0.690
365	0.800	0.580
350	0.500	0.180
334	0.060	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ80 / λ5	38/33

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2779
$P_{C,s}$	0.5328
$P_{d,C}$	0.3025
$P_{e,d}$	0.2381
$P_{g,F}$	0.5515
$P_{i,h}$	0.8015

Relative Partial Dispersion P'

$P'_{s,t}$	0.2753
$P'_{C',s}$	0.5755
$P'_{d,C'}$	0.2521
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4894
$P'_{i,h}$	0.7941

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

$\Delta P_{C,t}$	0.0256
$\Delta P_{C,s}$	0.0119
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0072
$\Delta P_{i,g}$	-0.0354

Chemical Properties

CR	2
FR	2
SR	52.3
AR	1
PR	3

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.8
T_g [°C]	636
$T_{10^{13}}$ [°C]	631
$T_{10^{7.6}}$ [°C]	714
c_p [J/(g*K)]	0.640
λ [W/(m•K)]	0.860
ρ [g/cm³]	3.69
E [10^3 N/mm²]	116
µ	0.286
K [10^{-6} mm²/N]	1.97
$HK_{0.1/20}$	780
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	4.1	5.0	5.8	1.8	2.6	3.4
+20/+40	4.2	5.1	6.1	2.7	3.6	4.6
+60/+80	4.4	5.4	6.5	3.2	4.3	5.3