Datasheet

SCHOTT
glass made of ideas

N-BAK4HT
569560.305

n_d = 1.56883	ν_d = 55.98	$n_F - n_C$ = 0.010162
n_e = 1.57125	ν_e = 55.70	$n_{F'} - n_{C'}$ = 0.010255

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54044
$n_{1970.1}$	1970.1	1.54561
$n_{1529.6}$	1529.6	1.55111
$n_{1060.0}$	1060.0	1.55688
n_t	1014.0	1.55755
n_s	852.1	1.56034
n_r	706.5	1.56400
n_C	656.3	1.56575
$n_{C'}$	643.8	1.56624
$n_{632.8}$	632.8	1.56670
n_D	589.3	1.56874
n_d	587.6	1.56883
n_e	546.1	1.57125
n_F	486.1	1.57591
$n_{F'}$	480.0	1.57649
n_g	435.8	1.58149
n_h	404.7	1.58614
n_i	365.0	1.59415
$n_{334.1}$	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	1.288346420
B_2	0.132817724
B_3	0.945395373
C_1	0.007799806
C_2	0.0315631177
C_3	105.96587500

Constants of Formula for dn/dT

D_0	3.06E-06
D_1	1.44E-08
D_2	-2.23E-11
E_0	5.46E-07
E_1	6.05E-10
λ_{TK} [µm]	0.189

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.850	0.670
2325	0.920	0.810
1970	0.979	0.950
1530	0.996	0.991
1060	0.999	0.998
700	0.998	0.996
660	0.998	0.996
620	0.998	0.996
580	0.998	0.996
546	0.998	0.996
500	0.998	0.995
460	0.997	0.993
436	0.997	0.992
420	0.996	0.991
405	0.994	0.985
400	0.993	0.983
390	0.989	0.972
380	0.979	0.950
370	0.959	0.900
365	0.940	0.860
350	0.810	0.600
334	0.390	0.100
320	0.020	0.000
310	0.000	
300		
290		
280		
270		
260		
250		

Color Code

λ80 / λ5	36/32

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2749
$P_{C,s}$	0.5321
$P_{d,C}$	0.3029
$P_{e,d}$	0.2383
$P_{g,F}$	0.5487
$P_{i,h}$	0.7879

Relative Partial Dispersion P'

$P'_{s,t}$	0.2724
$P'_{C',s}$	0.5750
$P'_{d,C'}$	0.2524
$P'_{e,d}$	0.2361
$P'_{g,F'}$	0.4869
$P'_{i,h}$	0.7807

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

$\Delta P_{C,t}$	-0.0034
$\Delta P_{C,s}$	-0.0013
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0010
$\Delta P_{i,g}$	-0.0087

Chemical Properties

CR	1
FR	0
SR	1.2
AR	1
PR	1

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.9
T_g [°C]	581
$T_{10^{13}}$ [°C]	569
$T_{10^{7.6}}$ [°C]	725
c_p [J/(g*K)]	0.680
λ [W/(m•K)]	0.880
ρ [g/cm³]	3.05
E [10^3 N/mm²]	77
µ	0.240
K [10^{-6} mm²/N]	2.90
$HK_{0.1/20}$	550
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	3.0	3.7	4.4	0.9	1.5	2.2
+20/+40	3.1	3.9	4.7	1.8	2.6	3.3
+60/+80	3.3	4.2	5.0	2.2	3.1	3.9