Datasheet

SCHOTT
glass made of ideas

N-BAF10
670471.375

n_d = 1.67003	ν_d = 47.11	$n_F - n_C$ = 0.014222
n_e = 1.67341	ν_e = 46.83	$n_{F'} - n_{C'}$ = 0.014380

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.63524
$n_{1970.1}$	1970.1	1.64094
$n_{1529.6}$	1529.6	1.64714
$n_{1060.0}$	1060.0	1.65404
n_t	1014.0	1.65488
n_s	852.1	1.65849
n_r	706.5	1.66339
n_C	656.3	1.66578
$n_{C'}$	643.8	1.66645
$n_{632.8}$	632.8	1.66708
n_D	589.3	1.66990
n_d	587.6	1.67003
n_e	546.1	1.67341
n_F	486.1	1.68000
$n_{F'}$	480.0	1.68083
n_g	435.8	1.68801
n_h	404.7	1.69480
n_i	365.0	
$n_{334.1}$	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	1.585149500
B_2	0.143559385
B_3	1.085212690
C_1	0.009266813
C_2	0.0424489805
C_3	105.61357300

Constants of Formula for dn/dT

D_0	3.79E-06
D_1	1.28E-08
D_2	-1.42E-11
E_0	5.84E-07
E_1	7.60E-10
λ_{TK} [µm]	0.220

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.730	0.450
2325	0.860	0.680
1970	0.967	0.920
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.994
660	0.996	0.990
620	0.996	0.991
580	0.996	0.990
546	0.996	0.990
500	0.992	0.981
460	0.987	0.967
436	0.981	0.954
420	0.976	0.940
405	0.959	0.900
400	0.950	0.880
390	0.920	0.800
380	0.850	0.660
370	0.720	0.440
365	0.630	0.310
350	0.180	0.010
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ80 / λ5	39/35

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2539
$P_{C,s}$	0.5122
$P_{d,C}$	0.2989
$P_{e,d}$	0.2377
$P_{g,F}$	0.5629
$P_{i,h}$	

Relative Partial Dispersion P'

$P'_{s,t}$	0.2511
$P'_{C',s}$	0.5533
$P'_{d,C'}$	0.2489
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4990
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0024
$\Delta P_{C,s}$	-0.0005
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0016
$\Delta P_{i,g}$	

Chemical Properties

CR	1
FR	0
SR	4.3
AR	1.3
PR	1

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.0
T_g [°C]	660
$T_{10^{13}}$ [°C]	652
$T_{10^{7.6}}$ [°C]	790
c_p [J/(g*K)]	0.560
λ [W/(m•K)]	0.780
ρ [g/cm³]	3.75
E [10^3 N/mm²]	89
µ	0.271
K [10^{-6} mm²/N]	2.37
$HK_{0.1/20}$	620
HG	4

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	3.7	4.7	5.6	1.5	2.4	3.3
+20/+40	3.8	4.9	6.0	2.4	3.5	4.5
+60/+80	4.0	5.2	6.4	2.9	4.1	5.3