Data Sheet

SCHOTT

N-BAF3
583466.279

$n_d = 1.58272$	$\nu_d = 46.64$	$n_F - n_C = 0.012495$
$n_e = 1.58569$	$\nu_e = 46.35$	$n_{F'} - n_{C'} = 0.012637$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54998
$n_{1970.1}$	1970.1	1.55574
$n_{1529.6}$	1529.6	1.56192
$n_{1060.0}$	1060.0	1.56850
n_t	1014.0	1.56927
n_s	852.1	1.57254
n_r	706.5	1.57689
n_C	656.3	1.57899
$n_{C'}$	643.8	1.57958
$n_{632.8}$	632.8	1.58013
n_D	589.3	1.58261
n_d	587.6	1.58272
n_e	546.1	1.58569
n_F	486.1	1.59149
$n_{F'}$	480.0	1.59222
n_g	435.8	1.59857
n_h	404.7	1.60463
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	1.34859634
B_2	0.10764424
B_3	1.13207084
C_1	0.00871492932
C_2	0.0478406436
C_3	112.936116

Constants of Dispersion dn/dT

D_0	$1.40 \cdot 10^{-6}$
D_1	$1.24 \cdot 10^{-8}$
D_2	$-9.39 \cdot 10^{-12}$
E_0	$5.91 \cdot 10^{-7}$
E_1	$7.44 \cdot 10^{-10}$
λ_{TK} [µm]	0.235

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.733	0.460
2325	0.847	0.660
1970	0.954	0.890
1530	0.992	0.980
1060	0.997	0.993
700	0.998	0.994
660	0.997	0.992
620	0.996	0.991
580	0.997	0.993
546	0.996	0.991
500	0.994	0.985
460	0.990	0.975
436	0.986	0.965
420	0.981	0.952
405	0.967	0.920
400	0.959	0.900
390	0.924	0.820
380	0.852	0.670
370	0.693	0.400
365	0.565	0.240
350	0.063	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

inquiry glass

Relative Partial Dispersion

$P_{s,t}$	0.2616
$P_{C,s}$	0.5160
$P_{d,C}$	0.2987
$P_{e,d}$	0.2375
$P_{g,F}$	0.5669
$P_{i,h}$	
$P'_{s,t}$	0.2587
$P'_{C',s}$	0.5569
$P'_{d,C'}$	0.2487
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5026
$P'_{i,h}$	

Deviation of Relative Partial Dispersions ΔP from the "Normal Line"

$\Delta P_{C,t}$	0.0114
$\Delta P_{C,s}$	0.0044
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	0.0015
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.2
T_g [°C]	583
$T_{10}^{13.0}$ [°C]	573
$T_{10}^{7.6}$ [°C]	714
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	1.040
ρ [g/cm^3]	2.79
E [10^3 N/mm^2]	82
µ	0.226
K [10^{-6} mm^2/N]	2.73
HK$_{0.1/20}$	560
HG	2
B	1
CR	1
FR	0
SR	1
AR	1
PR	1

Temperature Coefficients of 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	2.4	3.2	4.1	0.3	1.1	1.9
+20/ +40	2.4	3.4	4.4	1.0	2.0	3.0
+60/ +80	2.5	3.6	4.8	1.5	2.5	3.7