Data Sheet

SCHOTT

N-BAF52
609466.305

$n_d = 1.60863$	$\nu_d = 46.60$	$n_F - n_C = 0.013061$
$n_e = 1.61173$	$\nu_e = 46.30$	$n_{F'} - n_{C'} = 0.013211$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57475
$n_{1970.1}$	1970.1	1.58067
$n_{1529.6}$	1529.6	1.58702
$n_{1060.0}$	1060.0	1.59381
n_t	1014.0	1.59461
n_s	852.1	1.59801
n_r	706.5	1.60254
n_C	656.3	1.60473
$n_{C'}$	643.8	1.60535
$n_{632.8}$	632.8	1.60593
n_D	589.3	1.60852
n_d	587.6	1.60863
n_e	546.1	1.61173
n_F	486.1	1.61779
$n_{F'}$	480.0	1.61856
n_g	435.8	1.62521
n_h	404.7	1.63157
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	1.43903433
B_2	0.0967046052
B_3	1.09875818
C_1	0.00907800128
C_2	0.050821208
C_3	105.691856

Constants of Dispersion dn/dT

D_0	$1.15 \cdot 10^{-6}$
D_1	$1.27 \cdot 10^{-8}$
D_2	$-5.08 \cdot 10^{-12}$
E_0	$5.64 \cdot 10^{-7}$
E_1	$6.38 \cdot 10^{-10}$
λ_{TK} [µm]	0.238

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.686	0.390
2325	0.831	0.630
1970	0.954	0.890
1530	0.990	0.975
1060	0.998	0.994
700	0.997	0.993
660	0.996	0.990
620	0.996	0.989
580	0.996	0.990
546	0.996	0.989
500	0.992	0.980
460	0.987	0.967
436	0.981	0.954
420	0.975	0.938
405	0.959	0.900
400	0.950	0.880
390	0.915	0.800
380	0.842	0.650
370	0.672	0.370
365	0.536	0.210
350	0.048	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2600
$P_{C,s}$	0.5147
$P_{d,C}$	0.2985
$P_{e,d}$	0.2374
$P_{g,F}$	0.5678
$P_{i,h}$	
$P'_{s,t}$	0.2571
$P'_{C',s}$	0.5555
$P'_{d,C'}$	0.2485
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5035
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0087
$\Delta P_{C,s}$	0.0031
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0024
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.8
T_g [°C]	594
$T_{10}^{13.0}$ [°C]	596
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	0.680
λ [W/(m·K)]	0.960
ρ [g/cm^3]	3.05
E [10^3 N/mm^2]	86
μ	0.237
K [10^{-6} mm^2/N]	2.42
HK$_{0.1/20}$	600
HG	3
CR	1
FR	0
SR	1
AR	1.3
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	2.3	3.1	4.0	0.2	0.9	1.8
+20/ +40	2.3	3.3	4.3	0.9	1.9	2.9
+60/ +80	2.5	3.6	4.7	1.4	2.5	3.6