Datasheet

SCHOTT
glass made of ideas

N-BAF52
609466.305

n_d = 1.60863	ν_d = 46.60	$n_F - n_C$ = 0.013061
n_e = 1.61173	ν_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	1.439034330
B_2	0.096704605
B_3	1.098758180
C_1	0.009078001
C_2	0.0508212080
C_3	105.69185600

Constants of Formula for dn/dT

D_0	1.15E-06
D_1	1.27E-08
D_2	-5.08E-12
E_0	5.64E-07
E_1	6.38E-10
λ_{TK} [µm]	0.238

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.690	0.390
2325	0.830	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	0.940
405	0.959	0.900
400	0.950	0.880
390	0.910	0.800
380	0.840	0.650
370	0.670	0.370
365	0.540	0.210
350	0.050	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ80 / λ5	39/35

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2600
$P_{C,s}$	0.5147
$P_{d,C}$	0.2985
$P_{e,d}$	0.2374
$P_{g,F}$	0.5678
$P_{i,h}$	

Relative Partial Dispersion P'

$P'_{s,t}$	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 Rel. Partial Disp. 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
$\Delta P_{i,g}$	

Chemical Properties

CR	1
FR	0
SR	1
AR	1.3
PR	1

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.8
T_g [°C]	594
$T_{10^{13}}$ [°C]	596
$T_{10^{7.6}}$ [°C]	716
c_p [J/(g*K)]	0.680
λ [W/(m•K)]	0.960
ρ [g/cm³]	3.05
E [10^3 N/mm²]	86
µ	0.237
K [10^{-6} mm²/N]	2.42
$HK_{0.1/20}$	600
HG	3

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	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