

Data Sheet

SCHOTT

N-BAF10
670471.375

$n_d = 1.67003$	$v_d = 47.11$	$n_F - n_C = 0.014222$
$n_e = 1.67341$	$v_e = 46.83$	$n_F - n_C = 0.014380$

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_e	587.6	1.67003
n_f	546.1	1.67341
$n_{f'}$	486.1	1.68000
$n_{g'}$	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	

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.727	0.450
2325	0.857	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	0.915	0.800
380	0.847	0.660
370	0.720	0.440
365	0.626	0.310
350	0.176	0.010
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion

$P_{s,t}$	0.2539
$P_{C,s}$	0.5122
$P_{d,C}$	0.2989
$P_{e,d}$	0.2377
$P_{g,F}$	0.5629
$P_{i,h}$	
$P'_{s,t}$	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 Relative Partial Dispersions 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
$\Delta P_{i,g}$	

Other Properties	
$\alpha_{-30/+70^\circ\text{C}} [10^{-6}/\text{K}]$	6.2
$\alpha_{+20/+300^\circ\text{C}} [10^{-6}/\text{K}]$	7.0
$T_g [\text{ }^\circ\text{C}]$	660
$T_{10}^{13.0} [\text{ }^\circ\text{C}]$	652
$T_{10}^{7.6} [\text{ }^\circ\text{C}]$	790
$c_p [\text{J}/(\text{g}\cdot\text{K})]$	0.560
$\lambda [\text{W}/(\text{m}\cdot\text{K})]$	0.780
$\rho [\text{g}/\text{cm}^3]$	3.75
$E [10^3 \text{ N/mm}^2]$	89
μ	0.271
$K [10^{-6} \text{ mm}^2/\text{N}]$	2.37
$HK_{0.1/20}$	620
HG	4
B	1
CR	1
FR	0
SR	4.3
AR	1.3
PR	1

Constants of Dispersion Formula		
B_1	1.5851495	
B_2	0.143559385	
B_3	1.08521269	
C_1	0.00926681282	
C_2	0.0424489805	
C_3	105.613573	

Color Code

λ_{80}/λ_5	39/35
($= \lambda_{70}/\lambda_5$)	

Remarks

Temperature Coefficients of Refractive Index						
	$\Delta n_{\text{rel}}/\Delta T [10^{-6}/\text{K}]$		$\Delta n_{\text{abs}}/\Delta T [10^{-6}/\text{K}]$			
[°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