Data Sheet

SCHOTT

N-BALF4
580539.311

$n_d = 1.57956$	$\nu_d = 53.87$	$n_F - n_C = 0.010759$
$n_e = 1.58212$	$\nu_e = 53.59$	$n_{F'} - n_{C'} = 0.010863$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55068
$n_{1970.1}$	1970.1	1.55577
$n_{1529.6}$	1529.6	1.56124
$n_{1060.0}$	1060.0	1.56707
n_t	1014.0	1.56776
n_s	852.1	1.57065
n_r	706.5	1.57447
n_C	656.3	1.57631
$n_{C'}$	643.8	1.57683
$n_{632.8}$	632.8	1.57731
n_D	589.3	1.57946
n_d	587.6	1.57956
n_e	546.1	1.58212
n_F	486.1	1.58707
$n_{F'}$	480.0	1.58769
n_g	435.8	1.59301
n_h	404.7	1.59799
n_i	365.0	1.60658
$n_{334.1}$	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	1.31004128
B_2	0.142038259
B_3	0.964929351
C_1	0.0079659645
C_2	0.0330672072
C_3	109.19732

Constants of Dispersion dn/dT

D_0	$5.33 \cdot 10^{-6}$
D_1	$1.47 \cdot 10^{-8}$
D_2	$-1.58 \cdot 10^{-11}$
E_0	$5.75 \cdot 10^{-7}$
E_1	$6.58 \cdot 10^{-10}$
λ_{TK} [µm]	0.195

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.804	0.580
2325	0.887	0.740
1970	0.967	0.920
1530	0.994	0.984
1060	0.997	0.993
700	0.999	0.997
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.995
500	0.997	0.993
460	0.994	0.986
436	0.993	0.983
420	0.992	0.981
405	0.988	0.970
400	0.985	0.964
390	0.976	0.940
380	0.959	0.900
370	0.924	0.820
365	0.891	0.750
350	0.679	0.380
334	0.158	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2687
$P_{C,s}$	0.5265
$P_{d,C}$	0.3019
$P_{e,d}$	0.2382
$P_{g,F}$	0.5520
$P_{i,h}$	0.7986
$P'_{s,t}$	0.2661
$P'_{C',s}$	0.5689
$P'_{d,C'}$	0.2515
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4897
$P'_{i,h}$	0.7909

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

$\Delta P_{C,t}$	-0.0053
$\Delta P_{C,s}$	-0.0019
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0012
$\Delta P_{i,g}$	-0.0114

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	578
$T_{10^{13.0}}$ [°C]	584
$T_{10^{7.6}}$ [°C]	661
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.850
ρ [g/cm³]	3.11
E [10^3 N/mm²]	77
μ	0.245
K [10^{-6} mm²/N]	3.01
HK $_{0.1/20}$	540
HG	2
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	4.1	4.9	5.6	2.0	2.7	3.4
+20/ +40	4.2	5.1	6.0	2.9	3.7	4.6
+60/ +80	4.4	5.4	6.4	3.4	4.3	5.3