Data Sheet

SCHOTT

N-BAK1
573576.319

$n_d = 1.57250$	$\nu_d = 57.55$	$n_F - n_C = 0.009948$
$n_e = 1.57487$	$\nu_e = 57.27$	$n_{F'} - n_{C'} = 0.010039$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54556
$n_{1970.1}$	1970.1	1.55032
$n_{1529.6}$	1529.6	1.55543
$n_{1060.0}$	1060.0	1.56088
n_t	1014.0	1.56152
n_s	852.1	1.56421
n_r	706.5	1.56778
n_C	656.3	1.56949
$n_{C'}$	643.8	1.56997
$n_{632.8}$	632.8	1.57041
n_D	589.3	1.57241
n_d	587.6	1.57250
n_e	546.1	1.57487
n_F	486.1	1.57943
$n_{F'}$	480.0	1.58000
n_g	435.8	1.58488
n_h	404.7	1.58941
n_i	365.0	1.59716
$n_{334.1}$	334.1	1.60554
$n_{312.6}$	312.6	1.61326
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.12365662
B_2	0.309276848
B_3	0.881511957
C_1	0.00644742752
C_2	0.0222284402
C_3	107.297751

Constants of Dispersion dn/dT

D_0	$1.86 \cdot 10^{-7}$
D_1	$1.29 \cdot 10^{-8}$
D_2	$-1.87 \cdot 10^{-11}$
E_0	$5.25 \cdot 10^{-7}$
E_1	$5.46 \cdot 10^{-10}$
λ_{TK} [µm]	0.182

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.806	0.584
2325	0.877	0.721
1970	0.960	0.903
1530	0.994	0.986
1060	0.998	0.996
700	0.999	0.997
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.996	0.990
436	0.996	0.989
420	0.996	0.990
405	0.996	0.990
400	0.996	0.990
390	0.995	0.988
380	0.993	0.983
370	0.991	0.977
365	0.987	0.969
350	0.971	0.930
334	0.924	0.820
320	0.799	0.570
310	0.609	0.290
300	0.345	0.070
290	0.102	
280	0.014	
270		
260		
250		

Color Code

λ_{80}/λ_5	33/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2712
$P_{C,s}$	0.5301
$P_{d,C}$	0.3029
$P_{e,d}$	0.2384
$P_{g,F}$	0.5472
$P_{i,h}$	0.7788
$P'_{s,t}$	0.2687
$P'_{C',s}$	0.5730
$P'_{d,C'}$	0.2525
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4855
$P'_{i,h}$	0.7717

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

$\Delta P_{C,t}$	-0.0167
$\Delta P_{C,s}$	-0.0069
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	-0.0075

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.6
T_g [°C]	592
$T_{10}^{13.0}$ [°C]	592
$T_{10}^{7.6}$ [°C]	746
c_p [J/(g·K)]	0.687
λ [W/(m·K)]	0.795
ρ [g/cm^3]	3.19
E [10^3 N/mm^2]	73
μ	0.252
K [10^{-6} mm^2/N]	2.62
HK$_{0.1/20}$	530
HG	2
CR	2
FR	1
SR	3.3
AR	1.2
PR	2

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	1.7	2.4	3.0	-0.4	0.2	0.8
+20/ +40	1.8	2.5	3.2	0.4	1.2	1.8
+60/ +80	1.9	2.7	3.5	0.9	1.7	2.4