Data Sheet

SCHOTT

BAFN6
589485.317

$n_d = 1.58900$	$\nu_d = 48.45$	$n_F - n_C = 0.012158$
$n_e = 1.59189$	$\nu_e = 48.16$	$n_{F'} - n_{C'} = 0.012291$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55832
$n_{1970.1}$	1970.1	1.56349
$n_{1529.6}$	1529.6	1.56910
$n_{1060.0}$	1060.0	1.57522
n_t	1014.0	1.57596
n_s	852.1	1.57910
n_r	706.5	1.58332
n_C	656.3	1.58536
$n_{C'}$	643.8	1.58594
$n_{632.8}$	632.8	1.58647
n_D	589.3	1.58889
n_d	587.6	1.58900
n_e	546.1	1.59189
n_F	486.1	1.59752
$n_{F'}$	480.0	1.59823
n_g	435.8	1.60436
n_h	404.7	1.61017
n_i	365.0	1.62038
$n_{334.1}$	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	1.36719201
B_2	0.10907994
B_3	1.02108011
C_1	0.00882820704
C_2	0.0438731646
C_3	113.58602

Constants of Dispersion dn/dT

D_0	$1.34 \cdot 10^{-6}$
D_1	$1.34 \cdot 10^{-8}$
D_2	$-5.50 \cdot 10^{-11}$
E_0	$4.95 \cdot 10^{-7}$
E_1	$3.62 \cdot 10^{-10}$
λ_{TK} [µm]	0.265

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500		
2325	0.910	0.780
1970	0.976	0.940
1530	0.998	0.995
1060	0.998	0.995
700	0.999	0.997
660	0.998	0.995
620	0.998	0.994
580	0.998	0.994
546	0.996	0.991
500	0.994	0.986
460	0.990	0.975
436	0.985	0.963
420	0.981	0.954
405	0.976	0.940
400	0.971	0.930
390	0.954	0.890
380	0.920	0.810
370	0.850	0.670
365	0.790	0.560
350	0.430	0.120
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/33
(*= λ_{70}/λ_5)	

Remarks

inquiry glass, lead containing

Relative Partial Dispersion

$P_{s,t}$	0.2580
$P_{C,s}$	0.5152
$P_{d,C}$	0.2993
$P_{e,d}$	0.2377
$P_{g,F}$	0.5625
$P_{i,h}$	0.8405
$P'_{s,t}$	0.2552
$P'_{C',s}$	0.5565
$P'_{d,C'}$	0.2492
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4987
$P'_{i,h}$	0.8314

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

$\Delta P_{C,t}$	-0.0015
$\Delta P_{C,s}$	-0.0006
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	0.0002

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.5
T_g [°C]	549
$T_{10}^{13.0}$ [°C]	0
$T_{10}^{7.6}$ [°C]	0
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.17
E [10^3 N/mm^2]	77
μ	0.234
K [10^{-6} mm^2/N]	2.50
$HK_{0.1/20}$	540
HG	
CR	2
FR	0
SR	2
AR	2
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	2.1	2.9	3.9	0.0	0.8	1.7
+20/ +40	2.3	3.2	4.3	1.0	1.8	2.8
+60/ +80	2.4	3.3	4.4	1.3	2.2	3.3