Data Sheet

SCHOTT

SF5
673322.407

n_d = 1.67270	ν_d = 32.21	$n_F - n_C$ = 0.020885
n_e = 1.67764	ν_e = 31.97	$n_{F'} - n_{C'}$ = 0.021195

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.63289
$n_{1970.1}$	1970.1	1.63785
$n_{1529.6}$	1529.6	1.64359
$n_{1060.0}$	1060.0	1.65104
n_t	1014.0	1.65206
n_s	852.1	1.65664
n_r	706.5	1.66327
n_C	656.3	1.66661
$n_{C'}$	643.8	1.66756
$n_{632.8}$	632.8	1.66846
n_D	589.3	1.67252
n_d	587.6	1.67270
n_e	546.1	1.67764
n_F	486.1	1.68750
$n_{F'}$	480.0	1.68876
n_g	435.8	1.69986
n_h	404.7	1.71069
n_i	365.0	1.73056
$n_{334.1}$	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	1.46141885
B_2	0.247713019
B_3	0.949995832
C_1	0.0111826126
C_2	0.0508594669
C_3	112.041888

Constants of Dispersion dn/dT

D_0	$2.59 \cdot 10^{-6}$
D_1	$1.76 \cdot 10^{-8}$
D_2	$-2.03 \cdot 10^{-11}$
E_0	$1.17 \cdot 10^{-6}$
E_1	$1.09 \cdot 10^{-9}$
λ_{TK} [μm]	0.255

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.847	0.660
2325	0.887	0.740
1970	0.959	0.900
1530	0.995	0.987
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.996
500	0.997	0.993
460	0.995	0.988
436	0.993	0.982
420	0.989	0.973
405	0.983	0.959
400	0.980	0.950
390	0.967	0.920
380	0.950	0.880
370	0.915	0.800
365	0.882	0.730
350	0.626	0.310
334	0.200	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2194
$P_{C,s}$	0.4775
$P_{d,C}$	0.2915
$P_{e,d}$	0.2366
$P_{g,F}$	0.5919
$P_{i,h}$	0.9513
$P'_{s,t}$	0.2162
$P'_{C',s}$	0.5153
$P'_{d,C'}$	0.2423
$P'_{e,d}$	0.2331
$P'_{g,F'}$	0.5237
$P'_{i,h}$	0.9374

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

$\Delta P_{C,t}$	-0.0010
$\Delta P_{C,s}$	-0.0005
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0023
$\Delta P_{i,g}$	0.0160

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.0
T_g [°C]	425
$T_{10}^{13.0}$ [°C]	421
$T_{10}^{7.6}$ [°C]	580
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	4.07
E [10^3 N/mm^2]	56
μ	0.233
K [10^{-6} mm^2/N]	2.28
$HK_{0.1/20}$	410
HG	2
B	1
CR	1
FR	1
SR	2
AR	2.3
PR	3

Temperature Coefficients of Refractive Index

[°C]	$\Delta n_{rel}/\Delta T$ [10^{-6}/K]			$\Delta n_{abs}/\Delta T$ [10^{-6}/K]		
	1060.0	e	g	1060.0	e	g
-40/ -20	3.1	5.1	7.4	0.9	2.8	5.1
+20/ +40	3.5	5.8	8.4	2.1	4.4	6.9
+60/ +80	3.9	6.4	9.2	2.8	5.2	8.0