Data Sheet

SCHOTT

SF11
785258.474

$n_d = 1.78472$	$\nu_d = 25.76$	$n_F - n_C = 0.030467$
$n_e = 1.79190$	$\nu_e = 25.55$	$n_{F'} - n_{C'} = 0.030997$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.73294
$n_{1970.1}$	1970.1	1.73843
$n_{1529.6}$	1529.6	1.74506
$n_{1060.0}$	1060.0	1.75445
n_t	1014.0	1.75579
n_s	852.1	1.76200
n_r	706.5	1.77125
n_C	656.3	1.77599
$n_{C'}$	643.8	1.77734
$n_{632.8}$	632.8	1.77862
n_D	589.3	1.78446
n_d	587.6	1.78472
n_e	546.1	1.79190
n_F	486.1	1.80645
$n_{F'}$	480.0	1.80834
n_g	435.8	1.82518
n_h	404.7	1.84208
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	

Constants of Dispersion Formula

B_1	1.73848403
B_2	0.311168974
B_3	1.17490871
C_1	0.0136068604
C_2	0.0615960463
C_3	121.922711

Constants of Dispersion dn/dT

D_0	$1.12 \cdot 10^{-5}$
D_1	$1.81 \cdot 10^{-8}$
D_2	$-5.03 \cdot 10^{-11}$
E_0	$1.46 \cdot 10^{-6}$
E_1	$1.58 \cdot 10^{-9}$
λ_{TK} [µm]	0.282

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.821	0.610
2325	0.867	0.700
1970	0.971	0.930
1530	0.993	0.982
1060	0.999	0.997
700	0.997	0.993
660	0.996	0.991
620	0.996	0.991
580	0.996	0.991
546	0.996	0.989
500	0.990	0.976
460	0.976	0.940
436	0.941	0.860
420	0.867	0.700
405	0.650	0.340
400	0.525	0.200
390	0.180	0.010
380		
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	44/39
(*= λ_{70}/λ_5)	

Remarks

lead containing

Relative Partial Dispersion

$P_{s,t}$	0.2039
$P_{C,s}$	0.4590
$P_{d,C}$	0.2866
$P_{e,d}$	0.2356
$P_{g,F}$	0.6147
$P_{i,h}$	
$P'_{s,t}$	0.2004
$P'_{C',s}$	0.4949
$P'_{d,C'}$	0.2380
$P'_{e,d}$	0.2316
$P'_{g,F'}$	0.5433
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0043
$\Delta P_{C,s}$	-0.0040
$\Delta P_{F,e}$	0.0029
$\Delta P_{g,F}$	0.0142
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.8
T_g [°C]	503
$T_{10}^{13.0}$ [°C]	500
$T_{10}^{7.6}$ [°C]	635
c_p [J/(g·K)]	0.431
λ [W/(m·K)]	0.737
ρ [g/cm³]	4.74
E [10^3 N/mm²]	66
μ	0.235
K [10^{-6} mm²/N]	1.33
HK$_{0.1/20}$	450
HG	1
CR	1
FR	0
SR	1
AR	1.2
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	8.4	11.7	15.8	6.1	9.2	13.3
+20/ +40	9.2	12.9	17.6	7.7	11.3	16.0
+60/ +80	9.6	13.6	18.7	8.4	12.4	17.4