Data Sheet

SCHOTT

F5
603380.347

$n_d = 1.60342$	$\nu_d = 38.03$	$n_F - n_C = 0.015867$
$n_e = 1.60718$	$\nu_e = 37.77$	$n_{F'} - n_{C'} = 0.016078$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.56934
$n_{1970.1}$	1970.1	1.57427
$n_{1529.6}$	1529.6	1.57979
$n_{1060.0}$	1060.0	1.58636
n_t	1014.0	1.58721
n_s	852.1	1.59093
n_r	706.5	1.59616
n_C	656.3	1.59875
$n_{C'}$	643.8	1.59948
$n_{632.8}$	632.8	1.60017
n_D	589.3	1.60328
n_d	587.6	1.60342
n_e	546.1	1.60718
n_F	486.1	1.61461
$n_{F'}$	480.0	1.61556
n_g	435.8	1.62381
n_h	404.7	1.63176
n_i	365.0	1.64606
$n_{334.1}$	334.1	1.66276
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.3104463
B_2	0.19603426
B_3	0.96612977
C_1	0.00958633048
C_2	0.0457627627
C_3	115.011883

Constants of Dispersion dn/dT

D_0	$2.13 \cdot 10^{-6}$
D_1	$1.65 \cdot 10^{-8}$
D_2	$-6.98 \cdot 10^{-11}$
E_0	$1.02 \cdot 10^{-6}$
E_1	$6.56 \cdot 10^{-10}$
λ_{TK} [µm]	0.208

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.787	0.550
2325	0.842	0.650
1970	0.941	0.860
1530	0.995	0.987
1060	0.999	0.998
700	0.999	0.997
660	0.998	0.996
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.998	0.994
460	0.996	0.991
436	0.996	0.990
420	0.995	0.988
405	0.994	0.985
400	0.993	0.982
390	0.989	0.973
380	0.984	0.960
370	0.971	0.930
365	0.963	0.910
350	0.896	0.760
334	0.618	0.300
320	0.080	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/32
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2346
$P_{C,s}$	0.4925
$P_{d,C}$	0.2946
$P_{e,d}$	0.2371
$P_{g,F}$	0.5795
$P_{i,h}$	0.9015
$P'_{s,t}$	0.2315
$P'_{C',s}$	0.5317
$P'_{d,C'}$	0.2451
$P'_{e,d}$	0.2340
$P'_{g,F'}$	0.5131
$P'_{i,h}$	0.8897

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

$\Delta P_{C,t}$	0.0017
$\Delta P_{C,s}$	0.0009
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0028

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.9
T_g [°C]	438
$T_{10^{13.0}}$ [°C]	425
$T_{10^{7.6}}$ [°C]	608
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.880
ρ [g/cm^3]	3.47
E [10^3 N/mm^2]	58
µ	0.220
K [10^{-6} mm^2/N]	2.92
HK$_{0.1/20}$	450
HG	3
CR	1
FR	0
SR	1
AR	2.3
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	2.5	4.0	5.5	0.4	1.8	3.3
+20/ +40	3.0	4.6	6.2	1.6	3.2	4.8
+60/ +80	3.1	4.8	6.5	2.0	3.7	5.4