

Data Sheet

SCHOTT

SF2
648339.386

$n_d = 1.64769$	$v_d = 33.85$	$n_F - n_C = 0.019135$
$n_e = 1.65222$	$v_e = 33.60$	$n_{F'} - n_{C'} = 0.019412$

Refractive Indices		
	λ [nm]	
$n_{2325.4}$	2325.4	1.61003
$n_{1970.1}$	1970.1	1.61494
$n_{1529.6}$	1529.6	1.62055
$n_{1060.0}$	1060.0	1.62766
n_t	1014.0	1.62861
n_s	852.1	1.63289
n_r	706.5	1.63902
n_C	656.3	1.64210
$n_{C'}$	643.8	1.64297
$n_{632.8}$	632.8	1.64379
n_D	589.3	1.64752
n_d	587.6	1.64769
n_e	546.1	1.65222
n_F	486.1	1.66123
$n_{F'}$	480.0	1.66238
n_g	435.8	1.67249
n_h	404.7	1.68233
n_i	365.0	1.70027
$n_{334.1}$	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	1.40301821
B_2	0.231767504
B_3	0.939056586
C_1	0.0105795466
C_2	0.0493226978
C_3	112.405955

Constants of Dispersion dn/dT	
D_0	$1.10 \cdot 10^{-6}$
D_1	$1.75 \cdot 10^{-8}$
D_2	$-1.29 \cdot 10^{-11}$
E_0	$1.08 \cdot 10^{-6}$
E_1	$1.03 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.249

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	2.3	4.0	6.0	0.1	1.8	3.7
+20/ +40	2.7	4.6	6.9	1.3	3.2	5.4
+60/ +80	3.1	5.2	7.6	2.0	4.1	6.4

Internal Transmittance τ_i		
λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.826	0.620
2325	0.872	0.710
1970	0.950	0.880
1530	0.994	0.985
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.994
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.995	0.988
436	0.993	0.982
420	0.990	0.975
405	0.985	0.962
400	0.981	0.954
390	0.967	0.920
380	0.946	0.870
370	0.910	0.790
365	0.877	0.720
350	0.672	0.370
334	0.110	
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	
$P_{s,t}$	0.2233
$P_{C,s}$	0.4813
$P_{d,C}$	0.2923
$P_{e,d}$	0.2367
$P_{g,F}$	0.5886
$P_{i,h}$	0.9376
$P'_{s,t}$	0.2201
$P'_{C',s}$	0.5196
$P'_{d,C'}$	0.2430
$P'_{e,d}$	0.2334
$P'_{g,F'}$	0.5209
$P'_{i,h}$	0.9242

Deviation of Relative Partial Dispersions ΔP from the "Normal Line"	
$\Delta P_{C,t}$	-0.0009
$\Delta P_{C,s}$	-0.0005
$\Delta P_{F,e}$	0.0004
$\Delta P_{g,F}$	0.0017
$\Delta P_{i,g}$	0.0112

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	8.4
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	9.2
$T_g [^\circ C]$	441
$T_{10}^{13.0} [^\circ C]$	428
$T_{10}^{7.6} [^\circ C]$	600
$c_p [J/(g \cdot K)]$	0.498
$\lambda [W/(m \cdot K)]$	0.735
$\rho [g/cm^3]$	3.86
$E [10^3 N/mm^2]$	55
μ	0.227
$K [10^{-6} mm^2/N]$	2.62
$HK_{0.1/20}$	410
HG	2
B	0
CR	1
FR	0
SR	2
AR	2.3
PR	2