Data Sheet

SCHOTT

LF5HTi
581409.322

$n_d = 1.58144$	$\nu_d = 40.89$	$n_F - n_C = 0.014220$
$n_e = 1.58482$	$\nu_e = 40.61$	$n_{F'} - n_{C'} = 0.014400$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54970
$n_{1970.1}$	1970.1	1.55448
$n_{1529.6}$	1529.6	1.55978
$n_{1060.0}$	1060.0	1.56596
n_t	1014.0	1.56674
n_s	852.1	1.57015
n_r	706.5	1.57490
n_C	656.3	1.57724
$n_{C'}$	643.8	1.57790
$n_{632.8}$	632.8	1.57852
n_D	589.3	1.58132
n_d	587.6	1.58144
n_e	546.1	1.58482
n_F	486.1	1.59145
$n_{F'}$	480.0	1.59230
n_g	435.8	1.59963
n_h	404.7	1.60665
n_i	365.0	1.61921
$n_{334.1}$	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	1.28552924
B_2	0.158357622
B_3	0.892175122
C_1	0.0093988626
C_2	0.0452566659
C_3	110.544829

Constants of Dispersion dn/dT

D_0	$-2.26 \cdot 10^{-6}$
D_1	$1.17 \cdot 10^{-8}$
D_2	$-4.14 \cdot 10^{-11}$
E_0	$8.24 \cdot 10^{-7}$
E_1	$7.78 \cdot 10^{-10}$
λ_{TK} [µm]	0.232

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.777	0.532
2325	0.830	0.628
1970	0.938	0.852
1530	0.996	0.991
1060	0.999	0.999
700	0.999	0.999
660	0.999	0.999
620	0.999	0.999
580	0.999	0.999
546	0.999	0.999
500	0.999	0.998
460	0.999	0.998
436	0.999	0.998
420	0.999	0.997
405	0.999	0.997
400	0.999	0.997
390	0.999	0.996
380	0.998	0.995
370	0.997	0.993
365	0.996	0.991
350	0.985	0.962
334	0.891	0.750
320	0.380	0.089
310	0.020	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/31
(*= λ_{70}/λ_5)	

Remarks

i-line glass

Relative Partial Dispersion

$P_{s,t}$	0.2401
$P_{C,s}$	0.4982
$P_{d,C}$	0.2959
$P_{e,d}$	0.2373
$P_{g,F}$	0.5746
$P_{i,h}$	0.8831
$P'_{s,t}$	0.2371
$P'_{C',s}$	0.5380
$P'_{d,C'}$	0.2462
$P'_{e,d}$	0.2343
$P'_{g,F'}$	0.5090
$P'_{i,h}$	0.8721

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

$\Delta P_{C,t}$	-0.0006
$\Delta P_{C,s}$	0.0000
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0004
$\Delta P_{i,g}$	-0.0041

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.6
T_g [°C]	419
$T_{10}^{13.0}$ [°C]	411
$T_{10}^{7.6}$ [°C]	585
c_p [J/(g·K)]	0.657
λ [W/(m·K)]	0.866
ρ [g/cm^3]	3.22
E [10^3 N/mm^2]	59
μ	0.223
K [10^{-6} mm^2/N]	2.83
HK$_{0.1/20}$	450
HG	
CR	2
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	0.7	1.8	3.0	-1.4	-0.3	0.8
+20/ +40	0.8	2.0	3.4	-0.6	0.7	2.0
+60/ +80	0.8	2.2	3.6	-0.3	1.1	2.5