Data Sheet

SCHOTT

LF5HTi
581409.322

n_d = 1.58144	ν_d = 40.89	$n_F - n_C$ = 0.014220
n_e = 1.58482	ν_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	0.00939886260
C_2	0.0452566659
C_3	110.5448290

Constants of Formula for dn/dT

D_0	-2.26E-06
D_1	1.17E-08
D_2	-4.14E-11
E_0	8.24E-07
E_1	7.78E-10
λ_{TK} [µm]	0.232

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.780	0.530
2325	0.830	0.630
1970	0.940	0.850
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	0.890	0.750
320	0.380	0.090
310	0.020	0.000
300	0.000	
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 Dispersion 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} [°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
CR	2
FR	0
SR	1
AR	2.3
PR	2

Temperature Coefficients of the 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