Data Sheet

SCHOTT

N-LAF7
749348.373

$n_d = 1.74950$	$\nu_d = 34.82$	$n_F - n_C = 0.021525$
$n_e = 1.75459$	$\nu_e = 34.56$	$n_{F'} - n_{C'} = 0.021833$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70344
$n_{1970.1}$	1970.1	1.71021
$n_{1529.6}$	1529.6	1.71772
$n_{1060.0}$	1060.0	1.72659
n_t	1014.0	1.72773
n_s	852.1	1.73272
n_r	706.5	1.73972
n_C	656.3	1.74320
$n_{C'}$	643.8	1.74419
$n_{632.8}$	632.8	1.74511
n_D	589.3	1.74931
n_d	587.6	1.74950
n_e	546.1	1.75459
n_F	486.1	1.76472
$n_{F'}$	480.0	1.76602
n_g	435.8	1.77741
n_h	404.7	1.78854
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	1.74028764
B_2	0.226710554
B_3	1.32525548
C_1	0.010792558
C_2	0.0538626639
C_3	106.268665

Constants of Dispersion dn/dT

D_0	$9.21 \cdot 10^{-7}$
D_1	$1.10 \cdot 10^{-8}$
D_2	$-1.75 \cdot 10^{-11}$
E_0	$7.67 \cdot 10^{-7}$
E_1	$1.10 \cdot 10^{-9}$
λ_{TK} [µm]	0.264

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.679	0.380
2325	0.867	0.700
1970	0.976	0.940
1530	0.996	0.990
1060	0.998	0.996
700	0.997	0.992
660	0.995	0.988
620	0.994	0.985
580	0.992	0.980
546	0.988	0.970
500	0.971	0.930
460	0.937	0.850
436	0.901	0.770
420	0.857	0.680
405	0.782	0.540
400	0.752	0.490
390	0.657	0.350
380	0.515	0.190
370	0.302	0.050
365	0.170	0.012
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	46/36
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2317
$P_{C,s}$	0.4870
$P_{d,C}$	0.2928
$P_{e,d}$	0.2366
$P_{g,F}$	0.5894
$P_{i,h}$	
$P'_{s,t}$	0.2284
$P'_{C',s}$	0.5254
$P'_{d,C'}$	0.2434
$P'_{e,d}$	0.2333
$P'_{g,F'}$	0.5218
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0085
$\Delta P_{C,s}$	0.0029
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0042
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	568
$T_{10}^{13.0}$ [°C]	563
$T_{10}^{7.6}$ [°C]	669
c_p [J/(g·K)]	0.620
λ [W/(m·K)]	0.830
ρ [g/cm^3]	3.73
E [10^3 N/mm^2]	96
μ	0.271
K [10^{-6} mm^2/N]	2.57
HK$_{0.1/20}$	530
HG	5
CR	1
FR	2
SR	51.3
AR	1.2
PR	1.2

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	3.9	5.6	0.2	1.5	3.1
+20/ +40	2.6	4.3	6.3	1.1	2.7	4.7
+60/ +80	2.7	4.6	6.8	1.6	3.4	5.6