Data Sheet

SCHOTT

N-LAF21
788475.428

$n_d = 1.78800$	$\nu_d = 47.49$	$n_F - n_C = 0.016593$
$n_e = 1.79195$	$\nu_e = 47.25$	$n_{F'} - n_{C'} = 0.016761$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.74419
$n_{1970.1}$	1970.1	1.75191
$n_{1529.6}$	1529.6	1.76014
$n_{1060.0}$	1060.0	1.76892
n_t	1014.0	1.76995
n_s	852.1	1.77434
n_r	706.5	1.78019
n_C	656.3	1.78301
$n_{C'}$	643.8	1.78380
$n_{632.8}$	632.8	1.78454
n_D	589.3	1.78785
n_d	587.6	1.78800
n_e	546.1	1.79195
n_F	486.1	1.79960
$n_{F'}$	480.0	1.80056
n_g	435.8	1.80882
n_h	404.7	1.81657
n_i	365.0	1.83002
$n_{334.1}$	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	1.87134529
B_2	0.25078301
B_3	1.22048639
C_1	0.0093332228
C_2	0.0345637762
C_3	83.2404866

Constants of Dispersion dn/dT

D_0	$3.11 \cdot 10^{-6}$
D_1	$1.13 \cdot 10^{-8}$
D_2	$-2.07 \cdot 10^{-11}$
E_0	$5.88 \cdot 10^{-7}$
E_1	$6.32 \cdot 10^{-10}$
λ_{TK} [µm]	0.199

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.430	0.121
2325	0.713	0.429
1970	0.942	0.862
1530	0.988	0.971
1060	0.998	0.996
700	0.998	0.994
660	0.997	0.993
620	0.997	0.992
580	0.997	0.992
546	0.997	0.993
500	0.996	0.989
460	0.990	0.976
436	0.985	0.964
420	0.981	0.952
405	0.971	0.928
400	0.966	0.916
390	0.949	0.878
380	0.921	0.814
370	0.870	0.707
365	0.833	0.634
350	0.644	0.333
334	0.276	0.040
320	0.030	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/32
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2646
$P_{C,s}$	0.5222
$P_{d,C}$	0.3009
$P_{e,d}$	0.2380
$P_{g,F}$	0.5555
$P_{i,h}$	0.8106
$P'_{s,t}$	0.2619
$P'_{C',s}$	0.5641
$P'_{d,C'}$	0.2507
$P'_{e,d}$	0.2356
$P'_{g,F'}$	0.4927
$P'_{i,h}$	0.8025

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

$\Delta P_{C,t}$	0.0165
$\Delta P_{C,s}$	0.0086
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0084
$\Delta P_{i,g}$	-0.0481

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.1
T_g [°C]	653
$T_{10}^{13.0}$ [°C]	659
$T_{10}^{7.6}$ [°C]	729
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	0.830
ρ [g/cm^3]	4.28
E [10^3 N/mm^2]	124
µ	0.295
K [10^{-6} mm^2/N]	1.46
HK$_{0.1/20}$	730
HG	2
CR	1
FR	1
SR	51.3
AR	1
PR	1.3

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	3.8	4.8	5.8	1.4	2.4	3.3
+20/ +40	3.9	5.1	6.2	2.3	3.5	4.6
+60/ +80	4.0	5.3	6.5	2.8	4.1	5.3