Data Sheet

SCHOTT

N-LAF34
773496.424

$n_d = 1.77250$	$\nu_d = 49.62$	$n_F - n_C = 0.015568$
$n_e = 1.77621$	$\nu_e = 49.38$	$n_{F'} - n_{C'} = 0.015719$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.73085
$n_{1970.1}$	1970.1	1.73824
$n_{1529.6}$	1529.6	1.74610
$n_{1060.0}$	1060.0	1.75447
n_t	1014.0	1.75546
n_s	852.1	1.75962
n_r	706.5	1.76515
n_C	656.3	1.76780
$n_{C'}$	643.8	1.76855
$n_{632.8}$	632.8	1.76924
n_D	589.3	1.77236
n_d	587.6	1.77250
n_e	546.1	1.77621
n_F	486.1	1.78337
$n_{F'}$	480.0	1.78427
n_g	435.8	1.79196
n_h	404.7	1.79915
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	1.75836958
B_2	0.313537785
B_3	1.18925231
C_1	0.00872810026
C_2	0.0293020832
C_3	85.1780644

Constants of Dispersion dn/dT

D_0	$3.89 \cdot 10^{-6}$
D_1	$1.02 \cdot 10^{-8}$
D_2	$-1.91 \cdot 10^{-11}$
E_0	$5.88 \cdot 10^{-7}$
E_1	$7.57 \cdot 10^{-10}$
λ_{TK} [µm]	0.181

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.454	0.139
2325	0.726	0.449
1970	0.945	0.868
1530	0.989	0.973
1060	0.999	0.998
700	0.998	0.996
660	0.998	0.996
620	0.998	0.995
580	0.998	0.995
546	0.998	0.996
500	0.997	0.993
460	0.994	0.986
436	0.991	0.978
420	0.988	0.971
405	0.983	0.958
400	0.980	0.950
390	0.971	0.929
380	0.955	0.891
370	0.927	0.828
365	0.908	0.785
350	0.815	0.600
334	0.643	0.332
320	0.424	0.117
310	0.236	0.027
300	0.069	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2674
$P_{C,s}$	0.5256
$P_{d,C}$	0.3018
$P_{e,d}$	0.2382
$P_{g,F}$	0.5518
$P_{i,h}$	
$P'_{s,t}$	0.2648
$P'_{C',s}$	0.5679
$P'_{d,C'}$	0.2515
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4895
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0126
$\Delta P_{C,s}$	0.0070
$\Delta P_{F,e}$	-0.0023
$\Delta P_{g,F}$	-0.0085
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.0
T_g [°C]	668
$T_{10}^{13.0}$ [°C]	659
$T_{10}^{7.6}$ [°C]	745
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.800
ρ [g/cm^3]	4.24
E [10^3 N/mm^2]	123
μ	0.292
K [10^{-6} mm^2/N]	1.44
HK$_{0.1/20}$	770
HG	2
CR	1
FR	1
SR	51.3
AR	1
PR	1

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	4.2	5.2	6.2	1.9	2.8	3.7
+20/ +40	4.3	5.4	6.5	2.7	3.9	4.9
+60/ +80	4.4	5.6	6.8	3.2	4.4	5.5