Data Sheet

SCHOTT

N-LASF41
835431.485

$n_d = 1.83501$	$\nu_d = 43.13$	$n_F - n_C = 0.019361$
$n_e = 1.83961$	$\nu_e = 42.88$	$n_{F'} - n_{C'} = 0.019578$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.78859
$n_{1970.1}$	1970.1	1.79608
$n_{1529.6}$	1529.6	1.80423
$n_{1060.0}$	1060.0	1.81338
n_t	1014.0	1.81450
n_s	852.1	1.81936
n_r	706.5	1.82599
n_C	656.3	1.82923
$n_{C'}$	643.8	1.83014
$n_{632.8}$	632.8	1.83100
n_D	589.3	1.83484
n_d	587.6	1.83501
n_e	546.1	1.83961
n_F	486.1	1.84859
$n_{F'}$	480.0	1.84972
n_g	435.8	1.85949
n_h	404.7	1.86872
n_i	365.0	1.88486
$n_{334.1}$	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	1.86348331
B_2	0.413307255
B_3	1.35784815
C_1	0.00910368219
C_2	0.0339247268
C_3	93.3580595

Constants of Dispersion dn/dT

D_0	$3.03 \cdot 10^{-6}$
D_1	$1.04 \cdot 10^{-8}$
D_2	$-1.30 \cdot 10^{-11}$
E_0	$6.62 \cdot 10^{-7}$
E_1	$7.82 \cdot 10^{-10}$
λ_{TK} [µm]	0.209

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.480	0.160
2325	0.764	0.510
1970	0.950	0.880
1530	0.993	0.983
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.994
620	0.997	0.993
580	0.998	0.994
546	0.997	0.993
500	0.994	0.984
460	0.985	0.962
436	0.976	0.940
420	0.967	0.920
405	0.954	0.890
400	0.948	0.876
390	0.928	0.830
380	0.891	0.750
370	0.831	0.630
365	0.787	0.550
350	0.592	0.270
334	0.292	0.040
320	0.040	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/32*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2508
$P_{C,s}$	0.5098
$P_{d,C}$	0.2986
$P_{e,d}$	0.2378
$P_{g,F}$	0.5629
$P_{i,h}$	0.8338
$P'_{s,t}$	0.2480
$P'_{C',s}$	0.5507
$P'_{d,C'}$	0.2487
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4989
$P'_{i,h}$	0.8245

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

$\Delta P_{C,t}$	0.0110
$\Delta P_{C,s}$	0.0063
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0083
$\Delta P_{i,g}$	-0.0520

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	651
$T_{10}^{13.0}$ [°C]	658
$T_{10}^{7.6}$ [°C]	739
c_p [J/(g·K)]	0.490
λ [W/(m·K)]	0.790
ρ [g/cm^3]	4.85
E [10^3 N/mm^2]	124
μ	0.294
K [10^{-6} mm^2/N]	1.57
HK$_{0.1/20}$	760
HG	2
CR	1
FR	1
SR	4
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	4.0	5.2	6.4	1.5	2.7	3.9
+20/ +40	4.0	5.4	6.8	2.4	3.8	5.2
+60/ +80	4.2	5.7	7.2	2.9	4.5	6.0