Data Sheet

SCHOTT

N-LASF43
806406.426

n_d = 1.80610	ν_d = 40.61	$n_F - n_C$ = 0.019850
n_e = 1.81081	ν_e = 40.36	$n_{F'} - n_{C'}$ = 0.020089

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.75901
$n_{1970.1}$	1970.1	1.76662
$n_{1529.6}$	1529.6	1.77488
$n_{1060.0}$	1060.0	1.78413
n_t	1014.0	1.78527
n_s	852.1	1.79018
n_r	706.5	1.79691
n_C	656.3	1.80020
$n_{C'}$	643.8	1.80113
$n_{632.8}$	632.8	1.80200
n_D	589.3	1.80593
n_d	587.6	1.80610
n_e	546.1	1.81081
n_F	486.1	1.82005
$n_{F'}$	480.0	1.82122
n_g	435.8	1.83137
n_h	404.7	1.84106
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	1.93502827
B_2	0.236629350
B_3	1.262913440
C_1	0.01040014130
C_2	0.0447505292
C_3	87.4375690

Constants of Formula for dn/dT

D_0	4.77E-06
D_1	1.14E-08
D_2	-2.68E-12
E_0	6.62E-07
E_1	8.84E-10
λ_{TK} [µm]	0.234

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.400	0.100
2325	0.710	0.430
1970	0.940	0.850
1530	0.984	0.960
1060	0.998	0.994
700	0.998	0.995
660	0.998	0.995
620	0.997	0.993
580	0.996	0.991
546	0.995	0.988
500	0.990	0.975
460	0.980	0.950
436	0.967	0.920
420	0.954	0.890
405	0.930	0.840
400	0.920	0.810
390	0.880	0.730
380	0.820	0.610
370	0.710	0.420
365	0.620	0.300
350	0.220	0.020
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80} / λ_5	42/34

(*= λ_{70}/λ_5)

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2476
$P_{C,s}$	0.5049
$P_{d,C}$	0.2972
$P_{e,d}$	0.2374
$P_{g,F}$	0.5703
$P_{i,h}$	
$P'_{s,t}$	0.2446
$P'_{C',s}$	0.5452
$P'_{d,C'}$	0.2473
$P'_{e,d}$	0.2346
$P'_{g,F'}$	0.5053
$P'_{i,h}$	

Deviation of Relative Partial Dispersion ΔP from the normal line

$\Delta P_{C,t}$	0.0149
$\Delta P_{C,s}$	0.0073
$\Delta P_{F,e}$	-0.0016
$\Delta P_{g,F}$	-0.0052
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	614
T_{10}^{13} [°C]	615
$T_{10}^{7.6}$ [°C]	699
c_p [J/(g*K)]	0.550
λ [W/(m•K)]	0.810
ρ [g/cm^3]	4.26
E [10^3 N/mm^2]	114
µ	0.290
K [10^{-6} mm^2/N]	1.92
$HK_{0.1/20}$	720
HG	2
CR	1
FR	1
SR	51.3
AR	1
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	4.9	6.2	7.6	2.5	3.8	5.0
+20/+40	5.0	6.5	8.1	3.4	4.9	6.4
+60/+80	5.2	6.9	8.6	4.0	5.6	7.4