Data Sheet

SCHOTT

N-LASF9
850322.441

n_d = 1.85025	ν_d = 32.17	$n_F - n_C$ = 0.026430
n_e = 1.85650	ν_e = 31.93	$n_{F'} - n_{C'}$ = 0.026827

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.80058
$n_{1970.1}$	1970.1	1.80659
$n_{1529.6}$	1529.6	1.81364
$n_{1060.0}$	1060.0	1.82293
n_t	1014.0	1.82420
n_s	852.1	1.82997
n_r	706.5	1.83834
n_C	656.3	1.84255
$n_{C'}$	643.8	1.84376
$n_{632.8}$	632.8	1.84489
n_D	589.3	1.85002
n_d	587.6	1.85025
n_e	546.1	1.85650
n_F	486.1	1.86898
$n_{F'}$	480.0	1.87058
n_g	435.8	1.88467
n_h	404.7	1.89845
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	2.00029547
B_2	0.298926886
B_3	1.806918430
C_1	0.01214260170
C_2	0.0538736236
C_3	156.5308290

Constants of Formula for dn/dT

D_0	1.05E-06
D_1	1.02E-08
D_2	-2.38E-11
E_0	9.19E-07
E_1	1.18E-09
λ_{TK} [µm]	0.257

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.810	0.600
2325	0.870	0.710
1970	0.967	0.920
1530	0.994	0.986
1060	0.998	0.994
700	0.994	0.986
660	0.992	0.981
620	0.992	0.979
580	0.991	0.978
546	0.989	0.972
500	0.978	0.950
460	0.958	0.900
436	0.930	0.840
420	0.900	0.770
405	0.830	0.630
400	0.800	0.570
390	0.690	0.400
380	0.530	0.200
370	0.270	0.040
365	0.140	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80} / λ_5	41/36*

(*= λ_{70}/λ_5)

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2181
$P_{C,s}$	0.4762
$P_{d,C}$	0.2912
$P_{e,d}$	0.2366
$P_{g,F}$	0.5934
$P_{i,h}$	
$P'_{s,t}$	0.2149
$P'_{C',s}$	0.5140
$P'_{d,C'}$	0.2420
$P'_{e,d}$	0.2330
$P'_{g,F'}$	0.5250
$P'_{i,h}$	

Deviation of Relative Partial Dispersion ΔP from the normal line

$\Delta P_{C,t}$	-0.0032
$\Delta P_{C,s}$	-0.0016
$\Delta P_{F,e}$	0.0008
$\Delta P_{g,F}$	0.0037
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	683
T_{10}^{13} [°C]	700
$T_{10}^{7.6}$ [°C]	817
c_p [J/(g*K)]	0.530
λ [W/(m•K)]	0.790
ρ [g/cm^3]	4.41
E [10^3 N/mm^2]	109
µ	0.288
K [10^{-6} mm^2/N]	1.72
HK$_{0.1/20}$	515
HG	4
Abrasion Aa	120
CR	1
FR	0
SR	2
AR	1
PR	1

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	2.8	4.7	6.9	0.4	2.2	4.3
+20/+40	2.9	5.1	7.7	1.4	3.5	6.0
+60/+80	3.1	5.5	8.2	1.8	4.2	6.9