Data Sheet

SCHOTT

N-LASF46A
904313.445

$n_d = 1.90366$	$\nu_d = 31.32$	$n_F - n_C = 0.028853$
$n_e = 1.91048$	$\nu_e = 31.09$	$n_{F'} - n_{C'} = 0.029287$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.84576
$n_{1970.1}$	1970.1	1.85364
$n_{1529.6}$	1529.6	1.86255
$n_{1060.0}$	1060.0	1.87353
n_t	1014.0	1.87498
n_s	852.1	1.88143
n_r	706.5	1.89064
n_C	656.3	1.89526
$n_{C'}$	643.8	1.89657
$n_{632.8}$	632.8	1.89781
n_D	589.3	1.90341
n_d	587.6	1.90366
n_e	546.1	1.91048
n_F	486.1	1.92411
$n_{F'}$	480.0	1.92586
n_g	435.8	1.94129
n_h	404.7	1.95645
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	2.16701566
B_2	0.319812761
B_3	1.66004486
C_1	0.0123595524
C_2	0.0560610282
C_3	107.047718

Constants of Dispersion dn/dT

D_0	$3.53 \cdot 10^{-6}$
D_1	$1.24 \cdot 10^{-8}$
D_2	$-1.87 \cdot 10^{-11}$
E_0	$8.39 \cdot 10^{-7}$
E_1	$1.04 \cdot 10^{-9}$
λ_{TK} [µm]	0.275

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.556	0.230
2325	0.793	0.560
1970	0.954	0.890
1530	0.991	0.977
1060	0.999	0.997
700	0.996	0.989
660	0.994	0.985
620	0.993	0.983
580	0.993	0.982
546	0.991	0.978
500	0.980	0.950
460	0.959	0.900
436	0.937	0.850
420	0.905	0.780
405	0.847	0.660
400	0.815	0.600
390	0.707	0.420
380	0.504	0.180
370	0.181	0.014
365	0.050	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	41/37*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2236
$P_{C,s}$	0.4793
$P_{d,C}$	0.2912
$P_{e,d}$	0.2364
$P_{g,F}$	0.5953
$P_{i,h}$	
$P'_{s,t}$	0.2203
$P'_{C',s}$	0.5170
$P'_{d,C'}$	0.2420
$P'_{e,d}$	0.2329
$P'_{g,F'}$	0.5268
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0094
$\Delta P_{C,s}$	0.0034
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0042
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.2
T_g [°C]	638
$T_{10}^{13.0}$ [°C]	639
$T_{10}^{7.6}$ [°C]	733
c_p [J/(g·K)]	0.540
λ [W/(m·K)]	0.910
ρ [g/cm^3]	4.45
E [10^3 N/mm^2]	124
μ	0.298
K [10^{-6} mm^2/N]	1.64
HK$_{0.1/20}$	666
HG	1
Abrasion Aa	88
CR	1
FR	0
SR	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	4.4	6.4	8.8	1.9	3.8	6.1
+20/ +40	4.7	7.0	9.8	3.1	5.3	8.1
+60/ +80	5.0	7.4	10.5	3.7	6.1	9.2