Data Sheet

SCHOTT

LASF35
022291.541

$n_d = 2.02204$	$\nu_d = 29.06$	$n_F - n_C = 0.035170$
$n_e = 2.03035$	$\nu_e = 28.84$	$n_{F'} - n_{C'} = 0.035721$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.95946
$n_{1970.1}$	1970.1	1.96639
$n_{1529.6}$	1529.6	1.97472
$n_{1060.0}$	1060.0	1.98624
n_t	1014.0	1.98786
n_s	852.1	1.99531
n_r	706.5	2.00628
n_C	656.3	2.01185
$n_{C'}$	643.8	2.01343
$n_{632.8}$	632.8	2.01493
n_D	589.3	2.02173
n_d	587.6	2.02204
n_e	546.1	2.03035
n_F	486.1	2.04702
$n_{F'}$	480.0	2.04916
n_g	435.8	2.06805
n_h	404.7	2.08663
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	2.45505861
B_2	0.453006077
B_3	2.3851308
C_1	0.0135670404
C_2	0.054580302
C_3	167.904715

Constants of Dispersion dn/dT

D_0	$1.43 \cdot 10^{-7}$
D_1	$8.71 \cdot 10^{-9}$
D_2	$-2.71 \cdot 10^{-11}$
E_0	$1.02 \cdot 10^{-6}$
E_1	$1.50 \cdot 10^{-9}$
λ_{TK} [µm]	0.263

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.787	0.550
2325	0.877	0.720
1970	0.973	0.934
1530	0.995	0.987
1060	0.998	0.994
700	0.992	0.981
660	0.990	0.974
620	0.987	0.969
580	0.985	0.962
546	0.977	0.943
500	0.948	0.874
460	0.903	0.774
436	0.852	0.670
420	0.787	0.550
405	0.686	0.390
400	0.634	0.320
390	0.504	0.180
380	0.302	0.050
370	0.100	
365	0.030	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	45/37*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2118
$P_{C,s}$	0.4701
$P_{d,C}$	0.2899
$P_{e,d}$	0.2364
$P_{g,F}$	0.5982
$P_{i,h}$	
$P'_{s,t}$	0.2086
$P'_{C',s}$	0.5073
$P'_{d,C'}$	0.2409
$P'_{e,d}$	0.2327
$P'_{g,F'}$	0.5291
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0009
$\Delta P_{C,s}$	-0.0006
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0033
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.5
T_g [°C]	774
$T_{10}^{13.0}$ [°C]	0
$T_{10}^{7.6}$ [°C]	0
c_p [J/(g·K)]	0.445
λ [W/(m·K)]	0.920
ρ [g/cm^3]	5.41
E [10^3 N/mm^2]	132
μ	0.303
K [10^{-6} mm^2/N]	0.73
HK$_{0.1/20}$	810
HG	1
CR	1
FR	0
SR	1.3
AR	1
PR	1.3

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	2.6	5.0	7.8	-0.1	2.2	5.0
+20/ +40	2.7	5.5	9.0	1.0	3.8	7.1
+60/ +80	2.8	5.9	9.7	1.4	4.5	8.3