Datasheet

N-SK14
603606.343

n_d = 1.60311	ν_d = 60.60	$n_F - n_C$ = 0.009953
n_e = 1.60548	ν_e = 60.34	$n_{F'} - n_{C'}$ = 0.010034

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57336
$n_{1970.1}$	1970.1	1.57903
$n_{1529.6}$	1529.6	1.58502
$n_{1060.0}$	1060.0	1.59113
n_t	1014.0	1.59182
n_s	852.1	1.59467
n_r	706.5	1.59834
n_C	656.3	1.60008
$n_{C'}$	643.8	1.60056
$n_{632.8}$	632.8	1.60101
n_D	589.3	1.60302
n_d	587.6	1.60311
n_e	546.1	1.60548
n_F	486.1	1.61003
$n_{F'}$	480.0	1.61059
n_g	435.8	1.61542
n_h	404.7	1.61988
n_i	365.0	1.62748
$n_{334.1}$	334.1	1.63564
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.936155374
B_2	0.594052018
B_3	1.043745830
C_1	0.004617165
C_2	0.0168859270
C_3	103.73626500

Constants of Formula for dn/dT

D_0	1.58E-06
D_1	1.22E-08
D_2	-8.04E-12
E_0	4.46E-07
E_1	5.22E-10
λ_{TK} [µm]	0.150

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.68	0.38
2325	0.83	0.63
1970	0.959	0.90
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.995
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.995	0.988
436	0.994	0.985
420	0.993	0.983
405	0.991	0.978
400	0.990	0.975
390	0.988	0.970
380	0.981	0.952
370	0.971	0.93
365	0.963	0.91
350	0.91	0.79
334	0.77	0.52
320	0.55	0.22
310	0.35	0.07
300	0.16	
290	0.04	
280		
270		
260		
250		

Color Code

λ80 / λ5	35/29

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2864
$P_{C,s}$	0.5427
$P_{d,C}$	0.3049
$P_{e,d}$	0.2385
$P_{g,F}$	0.5415
$P_{i,h}$	0.7631

Relative Partial Dispersion P'

$P'_{s,t}$	0.2841
$P'_{C',s}$	0.5865
$P'_{d,C'}$	0.2542
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4808
$P'_{i,h}$	0.7569

Deviation of Rel. Partial Disp. ΔP from the normal line

$\Delta P_{C,t}$	-0.0033
$\Delta P_{C,s}$	-0.0015
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0044

Chemical Properties

CR	4
FR	2
SR	51.3
AR	2
PR	2.3

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.0
T_g [°C]	654
$T_{10^{13}}$ [°C]	638
$T_{10^{7.6}}$ [°C]	773
c_p [J/(g*K)]	0.636
λ [W/(m•K)]	0.851
ρ [g/cm³]	3.43
E [10^3 N/mm²]	86
µ	0.261
K [10^{-6} mm²/N]	2.00
$HK_{0.1/20}$	600
HG	3

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	2.5	3.0	3.5	0.3	0.8	1.3
+20/+40	2.4	3.1	3.7	1.1	1.7	2.3
+60/+80	2.6	3.3	4.0	1.5	2.2	2.8