Datasheet

SCHOTT
glass made of ideas

N-SK16
620603.358

n_d = 1.62041	ν_d = 60.32	$n_F - n_C$ = 0.010285
n_e = 1.62286	ν_e = 60.08	$n_{F'} - n_{C'}$ = 0.010368

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58919
$n_{1970.1}$	1970.1	1.59523
$n_{1529.6}$	1529.6	1.60157
$n_{1060.0}$	1060.0	1.60799
n_t	1014.0	1.60871
n_s	852.1	1.61167
n_r	706.5	1.61548
n_C	656.3	1.61727
$n_{C'}$	643.8	1.61777
$n_{632.8}$	632.8	1.61824
n_D	589.3	1.62032
n_d	587.6	1.62041
n_e	546.1	1.62286
n_F	486.1	1.62756
$n_{F'}$	480.0	1.62814
n_g	435.8	1.63312
n_h	404.7	1.63773
n_i	365.0	1.64559
$n_{334.1}$	334.1	1.65403
$n_{312.6}$	312.6	1.66178
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.343177740
B_2	0.241144399
B_3	0.994317969
C_1	0.007046873
C_2	0.0229005000
C_3	92.75085260

Constants of Formula for dn/dT

D_0	-2.37E-08
D_1	1.32E-08
D_2	-1.29E-11
E_0	4.09E-07
E_1	5.17E-10
λ_{TK} [µm]	0.170

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.580	0.260
2325	0.780	0.540
1970	0.950	0.880
1530	0.989	0.973
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.994
620	0.997	0.993
580	0.998	0.994
546	0.998	0.994
500	0.996	0.991
460	0.994	0.984
436	0.992	0.981
420	0.992	0.979
405	0.990	0.974
400	0.988	0.970
390	0.982	0.956
380	0.971	0.930
370	0.954	0.890
365	0.940	0.860
350	0.870	0.700
334	0.690	0.400
320	0.410	0.110
310	0.210	0.020
300	0.060	
290	0.010	
280		
270		
260		
250		

Color Code

λ80 / λ5	36/30

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2885
$P_{C,s}$	0.5443
$P_{d,C}$	0.3051
$P_{e,d}$	0.2385
$P_{g,F}$	0.5412
$P_{i,h}$	0.7633

Relative Partial Dispersion P'

$P'_{s,t}$	0.2861
$P'_{C',s}$	0.5882
$P'_{d,C'}$	0.2544
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4805
$P'_{i,h}$	0.7572

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

$\Delta P_{C,t}$	0.0016
$\Delta P_{C,s}$	0.0007
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0011
$\Delta P_{i,g}$	-0.0067

Chemical Properties

CR	4
FR	4
SR	53.3
AR	3.3
PR	3.2

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	636
$T_{10^{13}}$ [°C]	633
$T_{10^{7.6}}$ [°C]	750
c_p [J/(g*K)]	0.578
λ [W/(m•K)]	0.818
ρ [g/cm³]	3.58
E [10^3 N/mm²]	89
µ	0.264
K [10^{-6} mm²/N]	1.90
$HK_{0.1/20}$	600
HG	4

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	1.6	2.2	2.6	-0.5	-0.1	0.4
+20/+40	1.7	2.3	2.9	0.3	0.9	1.4
+60/+80	1.9	2.6	3.2	0.8	1.5	2.1