Data Sheet

SCHOTT

N-SF1
717296.303

$n_d = 1.71736$	$\nu_d = 29.62$	$n_F - n_C = 0.024219$
$n_e = 1.72308$	$\nu_e = 29.39$	$n_{F'} - n_{C'} = 0.024606$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67021
$n_{1970.1}$	1970.1	1.67641
$n_{1529.6}$	1529.6	1.68350
$n_{1060.0}$	1060.0	1.69240
n_t	1014.0	1.69358
n_s	852.1	1.69889
n_r	706.5	1.70651
n_C	656.3	1.71035
$n_{C'}$	643.8	1.71144
$n_{632.8}$	632.8	1.71247
n_D	589.3	1.71715
n_d	587.6	1.71736
n_e	546.1	1.72308
n_F	486.1	1.73457
$n_{F'}$	480.0	1.73605
n_g	435.8	1.74919
n_h	404.7	1.76224
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	1.60865158
B_2	0.237725916
B_3	1.51530653
C_1	0.0119654879
C_2	0.0590589722
C_3	135.521676

Constants of Dispersion dn/dT

D_0	$-3.72 \cdot 10^{-6}$
D_1	$8.05 \cdot 10^{-9}$
D_2	$-1.71 \cdot 10^{-11}$
E_0	$8.98 \cdot 10^{-7}$
E_1	$1.34 \cdot 10^{-9}$
λ_{TK} [µm]	0.276

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.733	0.460
2325	0.804	0.580
1970	0.937	0.850
1530	0.989	0.973
1060	0.998	0.995
700	0.996	0.990
660	0.994	0.986
620	0.995	0.987
580	0.996	0.990
546	0.994	0.986
500	0.987	0.968
460	0.976	0.940
436	0.963	0.910
420	0.946	0.870
405	0.896	0.760
400	0.867	0.700
390	0.770	0.520
380	0.574	0.250
370	0.252	0.030
365	0.096	
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

$P_{s,t}$	0.2190
$P_{C,s}$	0.4733
$P_{d,C}$	0.2895
$P_{e,d}$	0.2360
$P_{g,F}$	0.6037
$P_{i,h}$	
$P'_{s,t}$	0.2156
$P'_{C',s}$	0.5103
$P'_{d,C'}$	0.2405
$P'_{e,d}$	0.2323
$P'_{g,F'}$	0.5340
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0068
$\Delta P_{C,s}$	0.0013
$\Delta P_{F,e}$	0.0016
$\Delta P_{g,F}$	0.0097
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.5
T_g [°C]	553
$T_{10}^{13.0}$ [°C]	554
$T_{10}^{7.6}$ [°C]	660
c_p [J/(g·K)]	0.750
λ [W/(m·K)]	1.000
ρ [g/cm³]	3.03
E [10^3 N/mm²]	90
μ	0.250
K [10^{-6} mm²/N]	2.72
HK $_{0.1/20}$	540
HG	5
CR	1
FR	0
SR	1
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	0.1	1.7	3.6	-2.2	-0.7	1.2
+20/ +40	0.0	1.8	4.2	-1.5	0.3	2.7
+60/ +80	0.0	2.1	4.8	-1.1	0.9	3.5