Data Sheet

SCHOTT

N-SF8
689313.290

$n_d = 1.68894$	$\nu_d = 31.31$	$n_F - n_C = 0.022005$
$n_e = 1.69413$	$\nu_e = 31.06$	$n_{F'} - n_{C'} = 0.022346$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.64448
$n_{1970.1}$	1970.1	1.65060
$n_{1529.6}$	1529.6	1.65753
$n_{1060.0}$	1060.0	1.66600
n_t	1014.0	1.66711
n_s	852.1	1.67203
n_r	706.5	1.67904
n_C	656.3	1.68254
$n_{C'}$	643.8	1.68354
$n_{632.8}$	632.8	1.68448
n_D	589.3	1.68874
n_d	587.6	1.68894
n_e	546.1	1.69413
n_F	486.1	1.70455
$n_{F'}$	480.0	1.70589
n_g	435.8	1.71775
n_h	404.7	1.72948
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	1.55075812
B_2	0.209816918
B_3	1.46205491
C_1	0.0114338344
C_2	0.0582725652
C_3	133.24165

Constants of Dispersion dn/dT

D_0	$-1.94 \cdot 10^{-6}$
D_1	$9.70 \cdot 10^{-9}$
D_2	$-2.34 \cdot 10^{-11}$
E_0	$8.32 \cdot 10^{-7}$
E_1	$1.15 \cdot 10^{-9}$
λ_{TK} [µm]	0.276

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.746	0.480
2325	0.815	0.600
1970	0.946	0.870
1530	0.988	0.970
1060	0.997	0.993
700	0.995	0.987
660	0.993	0.983
620	0.993	0.983
580	0.994	0.986
546	0.993	0.983
500	0.985	0.963
460	0.976	0.940
436	0.965	0.914
420	0.950	0.880
405	0.919	0.810
400	0.901	0.770
390	0.831	0.630
380	0.672	0.370
370	0.345	0.070
365	0.158	
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

$P_{s,t}$	0.2236
$P_{C,s}$	0.4778
$P_{d,C}$	0.2905
$P_{e,d}$	0.2362
$P_{g,F}$	0.5999
$P_{i,h}$	
$P'_{s,t}$	0.2202
$P'_{C',s}$	0.5152
$P'_{d,C'}$	0.2413
$P'_{e,d}$	0.2326
$P'_{g,F'}$	0.5308
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0080
$\Delta P_{C,s}$	0.0019
$\Delta P_{F,e}$	0.0014
$\Delta P_{g,F}$	0.0087
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.9
T_g [°C]	567
$T_{10}^{13.0}$ [°C]	564
$T_{10}^{7.6}$ [°C]	678
c_p [J/(g·K)]	0.770
λ [W/(m·K)]	1.030
ρ [g/cm^3]	2.90
E [10^3 N/mm^2]	88
μ	0.245
K [10^{-6} mm^2/N]	2.95
HK$_{0.1/20}$	600
HG	4
CR	1
FR	0
SR	1
AR	1
PR	1
SR-J	1
WR-J	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	1.0	2.4	4.2	-1.3	0.1	1.8
+20/ +40	0.9	2.6	4.8	-0.5	1.2	3.3
+60/ +80	1.0	2.9	5.3	-0.1	1.7	4.1