Data Sheet

SCHOTT

N-SF10
728285.305

$n_d = 1.72828$	$\nu_d = 28.53$	$n_F - n_C = 0.025524$
$n_e = 1.73430$	$\nu_e = 28.31$	$n_{F'} - n_{C'} = 0.025941$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67981
$n_{1970.1}$	1970.1	1.68597
$n_{1529.6}$	1529.6	1.69308
$n_{1060.0}$	1060.0	1.70217
n_t	1014.0	1.70340
n_s	852.1	1.70891
n_r	706.5	1.71688
n_C	656.3	1.72091
$n_{C'}$	643.8	1.72206
$n_{632.8}$	632.8	1.72314
n_D	589.3	1.72806
n_d	587.6	1.72828
n_e	546.1	1.73430
n_F	486.1	1.74643
$n_{F'}$	480.0	1.74800
n_g	435.8	1.76191
n_h	404.7	1.77578
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	1.62153902
B_2	0.256287842
B_3	1.64447552
C_1	0.0122241457
C_2	0.0595736775
C_3	147.468793

Constants of Dispersion dn/dT

D_0	$-4.68 \cdot 10^{-6}$
D_1	$7.41 \cdot 10^{-9}$
D_2	$-1.89 \cdot 10^{-11}$
E_0	$9.49 \cdot 10^{-7}$
E_1	$1.42 \cdot 10^{-9}$
λ_{TK} [µm]	0.279

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.847	0.660
2325	0.896	0.760
1970	0.971	0.930
1530	0.994	0.985
1060	0.996	0.990
700	0.993	0.983
660	0.990	0.976
620	0.991	0.977
580	0.991	0.978
546	0.989	0.973
500	0.978	0.945
460	0.963	0.910
436	0.946	0.870
420	0.924	0.820
405	0.867	0.700
400	0.837	0.640
390	0.727	0.450
380	0.525	0.200
370	0.176	
365	0.058	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	42/36
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2160
$P_{C,s}$	0.4701
$P_{d,C}$	0.2888
$P_{e,d}$	0.2359
$P_{g,F}$	0.6066
$P_{i,h}$	
$P'_{s,t}$	0.2125
$P'_{C',s}$	0.5068
$P'_{d,C'}$	0.2398
$P'_{e,d}$	0.2321
$P'_{g,F'}$	0.5365
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0057
$\Delta P_{C,s}$	0.0007
$\Delta P_{F,e}$	0.0019
$\Delta P_{g,F}$	0.0108
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.8
T_g [°C]	559
$T_{10}^{13.0}$ [°C]	549
$T_{10}^{7.6}$ [°C]	652
c_p [J/(g·K)]	0.740
λ [W/(m·K)]	0.960
ρ [g/cm^3]	3.05
E [10^3 N/mm^2]	87
μ	0.252
K [10^{-6} mm^2/N]	2.92
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	-0.4	1.3	3.4	-2.7	-1.1	1.0
+20/ +40	-0.5	1.5	4.1	-2.0	-0.1	2.5
+60/ +80	-0.5	1.7	4.6	-1.7	0.5	3.4