Data Sheet

SCHOTT

N-SF11
785257.322

$n_d = 1.78472$	$\nu_d = 25.68$	$n_F - n_C = 0.030558$
$n_e = 1.79192$	$\nu_e = 25.47$	$n_{F'} - n_{C'} = 0.031088$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.72937
$n_{1970.1}$	1970.1	1.73600
$n_{1529.6}$	1529.6	1.74377
$n_{1060.0}$	1060.0	1.75401
n_t	1014.0	1.75542
n_s	852.1	1.76182
n_r	706.5	1.77119
n_C	656.3	1.77596
$n_{C'}$	643.8	1.77732
$n_{632.8}$	632.8	1.77860
n_D	589.3	1.78446
n_d	587.6	1.78472
n_e	546.1	1.79192
n_F	486.1	1.80651
$n_{F'}$	480.0	1.80841
n_g	435.8	1.82533
n_h	404.7	1.84235
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	1.73759695
B_2	0.313747346
B_3	1.89878101
C_1	0.013188707
C_2	0.0623068142
C_3	155.23629

Constants of Dispersion dn/dT

D_0	$-3.56 \cdot 10^{-6}$
D_1	$9.20 \cdot 10^{-9}$
D_2	$-2.10 \cdot 10^{-11}$
E_0	$9.65 \cdot 10^{-7}$
E_1	$1.44 \cdot 10^{-9}$
λ_{TK} [µm]	0.294

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.826	0.620
2325	0.867	0.700
1970	0.965	0.915
1530	0.994	0.985
1060	0.999	0.998
700	0.994	0.985
660	0.992	0.981
620	0.992	0.981
580	0.994	0.984
546	0.991	0.978
500	0.981	0.953
460	0.967	0.920
436	0.946	0.870
420	0.919	0.810
405	0.852	0.670
400	0.815	0.600
390	0.686	0.390
380	0.428	0.120
370	0.083	0.002
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	44/37
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2095
$P_{C,s}$	0.4625
$P_{d,C}$	0.2868
$P_{e,d}$	0.2355
$P_{g,F}$	0.6156
$P_{i,h}$	
$P'_{s,t}$	0.2059
$P'_{C',s}$	0.4984
$P'_{d,C'}$	0.2381
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5442
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0052
$\Delta P_{C,s}$	-0.0003
$\Delta P_{F,e}$	0.0027
$\Delta P_{g,F}$	0.0150
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.9
T_g [°C]	592
$T_{10}^{13.0}$ [°C]	590
$T_{10}^{7.6}$ [°C]	688
c_p [J/(g·K)]	0.710
λ [W/(m·K)]	0.950
ρ [g/cm³]	3.22
E [10^3 N/mm²]	92
μ	0.257
K [10^{-6} mm²/N]	2.94
HK $_{0.1/20}$	615
HG	4
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	2.0	4.6	-2.3	-0.5	2.1
+20/ +40	0.1	2.4	5.6	-1.4	0.8	4.0
+60/ +80	0.2	2.7	6.3	-1.0	1.5	5.1