Data Sheet

SCHOTT

N-SF19
667331.290

$n_d = 1.66679$	$\nu_d = 33.12$	$n_F - n_C = 0.020131$
$n_e = 1.67154$	$\nu_e = 32.86$	$n_{F'} - n_{C'} = 0.020435$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.62384
$n_{1970.1}$	1970.1	1.63018
$n_{1529.6}$	1529.6	1.63723
$n_{1060.0}$	1060.0	1.64552
n_t	1014.0	1.64657
n_s	852.1	1.65120
n_r	706.5	1.65769
n_C	656.3	1.66092
$n_{C'}$	643.8	1.66184
$n_{632.8}$	632.8	1.66271
n_D	589.3	1.66661
n_d	587.6	1.66679
n_e	546.1	1.67154
n_F	486.1	1.68106
$n_{F'}$	480.0	1.68228
n_g	435.8	1.69309
n_h	404.7	1.70377
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	1.52005444
B_2	0.17573947
B_3	1.43623424
C_1	0.01096144
C_2	0.0593248486
C_3	126.795151

Constants of Dispersion dn/dT

D_0	$1.32 \cdot 10^{-6}$
D_1	$1.22 \cdot 10^{-8}$
D_2	$-1.36 \cdot 10^{-11}$
E_0	$7.64 \cdot 10^{-7}$
E_1	$1.09 \cdot 10^{-9}$
λ_{TK} [µm]	0.279

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.720	0.440
2325	0.826	0.620
1970	0.954	0.890
1530	0.988	0.970
1060	0.996	0.989
700	0.994	0.985
660	0.992	0.980
620	0.991	0.978
580	0.992	0.980
546	0.991	0.977
500	0.984	0.960
460	0.974	0.937
436	0.965	0.915
420	0.950	0.880
405	0.919	0.810
400	0.901	0.770
390	0.826	0.620
380	0.642	0.330
370	0.302	0.050
365	0.130	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/36
(*= λ_{70}/λ_5)	

Remarks

inquiry glass

Relative Partial Dispersion

$P_{s,t}$	0.2299
$P_{C,s}$	0.4831
$P_{d,C}$	0.2913
$P_{e,d}$	0.2362
$P_{g,F}$	0.5976
$P_{i,h}$	
$P'_{s,t}$	0.2265
$P'_{C',s}$	0.5208
$P'_{d,C'}$	0.2421
$P'_{e,d}$	0.2327
$P'_{g,F'}$	0.5289
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0109
$\Delta P_{C,s}$	0.0030
$\Delta P_{F,e}$	0.0015
$\Delta P_{g,F}$	0.0095
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.3
T_g [°C]	598
$T_{10}^{13.0}$ [°C]	585
$T_{10}^{7.6}$ [°C]	707
c_p [J/(g·K)]	0.750
λ [W/(m·K)]	1.020
ρ [g/cm³]	2.90
E [10^3 N/mm²]	88
μ	0.231
K [10^{-6} mm²/N]	2.93
HK$_{0.1/20}$	630
HG	3
CR	1
FR	0
SR	1
AR	1.2
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	2.5	3.9	5.5	0.3	1.6	3.2
+20/ +40	2.6	4.2	6.2	1.2	2.7	4.7
+60/ +80	2.8	4.6	6.8	1.7	3.4	5.6