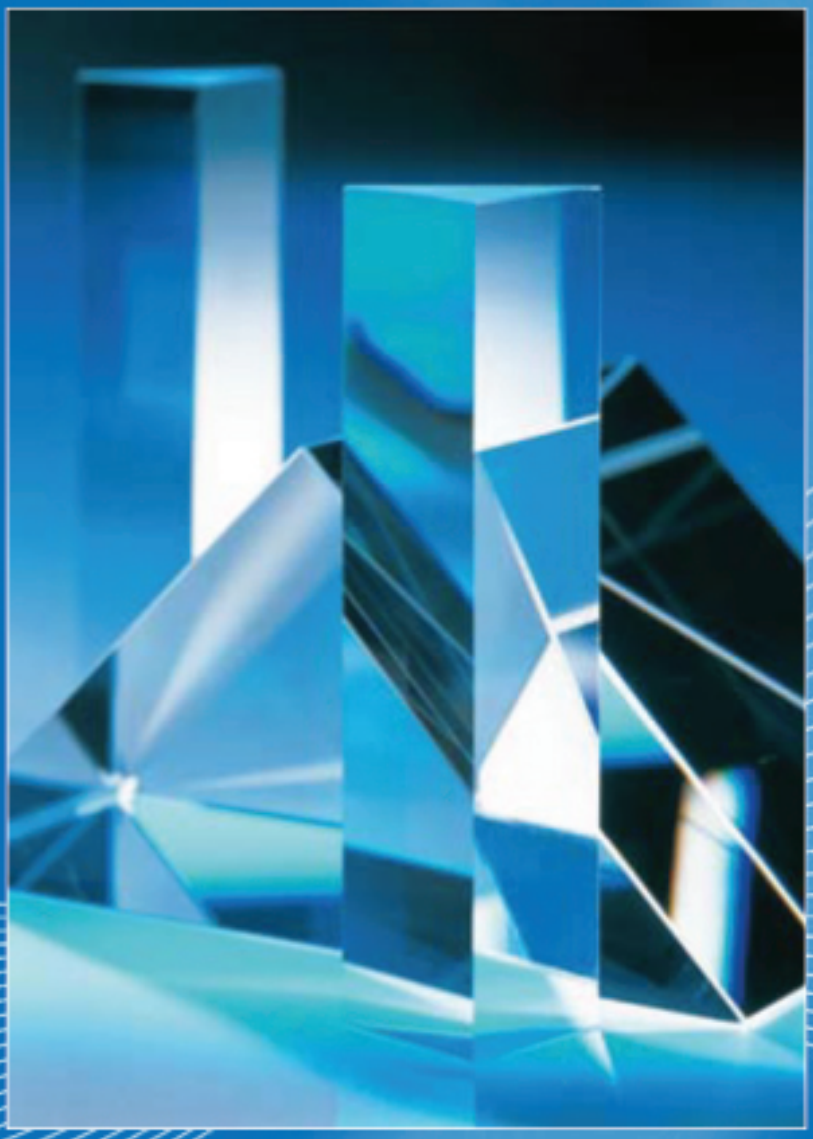
Optical Glass

Data Sheets



SCHOTT
glass made of ideas

TABLE OF CONTENT

1) Glass suitable for Precision Molding

Data Sheet

SCHOTT

N-FK5
487704.245

$n_d = 1.48749$	$\nu_d = 70.41$	$n_F - n_C = 0.006924$
$n_e = 1.48914$	$\nu_e = 70.23$	$n_{F'} - n_{C'} = 0.006965$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.46181
$n_{1970.1}$	1970.1	1.46738
$n_{1529.6}$	1529.6	1.47312
$n_{1060.0}$	1060.0	1.47855
n_t	1014.0	1.47912
n_s	852.1	1.48137
n_r	706.5	1.48410
n_C	656.3	1.48535
$n_{C'}$	643.8	1.48569
$n_{632.8}$	632.8	1.48601
n_D	589.3	1.48743
n_d	587.6	1.48749
n_e	546.1	1.48914
n_F	486.1	1.49227
$n_{F'}$	480.0	1.49266
n_g	435.8	1.49593
n_h	404.7	1.49894
n_i	365.0	1.50401
$n_{334.1}$	334.1	1.50939
$n_{312.6}$	312.6	1.51428
$n_{296.7}$	296.7	1.51867
$n_{280.4}$	280.4	1.52415
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.844309338
B_2	0.344147824
B_3	0.910790213
C_1	0.00475111955
C_2	0.0149814849
C_3	97.8600293

Constants of Dispersion dn/dT

D_0	$-7.24 \cdot 10^{-6}$
D_1	$1.58 \cdot 10^{-8}$
D_2	$-9.51 \cdot 10^{-12}$
E_0	$3.51 \cdot 10^{-7}$
E_1	$4.61 \cdot 10^{-10}$
λ_{TK} [µm]	0.156

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.679	0.380
2325	0.831	0.630
1970	0.971	0.930
1530	0.986	0.965
1060	0.999	0.998
700	0.998	0.996
660	0.998	0.994
620	0.997	0.993
580	0.998	0.994
546	0.998	0.994
500	0.997	0.993
460	0.997	0.993
436	0.997	0.993
420	0.997	0.993
405	0.998	0.994
400	0.998	0.994
390	0.998	0.994
380	0.996	0.990
370	0.997	0.992
365	0.997	0.992
350	0.995	0.987
334	0.989	0.972
320	0.971	0.930
310	0.941	0.860
300	0.867	0.700
290	0.693	0.400
280	0.397	0.110
270	0.070	
260		
250		

Color Code

λ_{80}/λ_5	30/27
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.3252
$P_{C,s}$	0.5740
$P_{d,C}$	0.3097
$P_{e,d}$	0.2388
$P_{g,F}$	0.5290
$P_{i,h}$	0.7319
$P'_{s,t}$	0.3232
$P'_{C',s}$	0.6201
$P'_{d,C'}$	0.2584
$P'_{e,d}$	0.2374
$P'_{g,F'}$	0.4704
$P'_{i,h}$	0.7276

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

$\Delta P_{C,t}$	0.0202
$\Delta P_{C,s}$	0.0070
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0036
$\Delta P_{i,g}$	0.0322

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.0
T_g [°C]	466
$T_{10^{13.0}}$ [°C]	469
$T_{10^{7.6}}$ [°C]	672
c_p [J/(g·K)]	0.808
λ [W/(m·K)]	0.925
AT [°C]	557
ρ [g/cm^3]	2.45
E [10^3 N/mm^2]	62
µ	0.232
K [10^{-6} mm^2/N]	2.91
HK$_{0.1/20}$	520
HG	3
HG-J	109
B	1
CR	2
FR	1
SR	4
AR	2
PR	2.3
SR-J	5
WR-J	4

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	-1.5	-1.2	-0.9	-3.5	-3.2	-2.9
+20/ +40	-1.4	-1.0	-0.6	-2.6	-2.3	-2.0
+60/ +80	-1.2	-0.7	-0.3	-2.2	-1.8	-1.4

Data Sheet

SCHOTT

N-FK51A
487845.368

$n_d = 1.48656$	$\nu_d = 84.47$	$n_F - n_C = 0.005760$
$n_e = 1.48794$	$\nu_e = 84.07$	$n_{F'} - n_{C'} = 0.005804$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.46958
$n_{1970.1}$	1970.1	1.47271
$n_{1529.6}$	1529.6	1.47608
$n_{1060.0}$	1060.0	1.47959
n_t	1014.0	1.47999
n_s	852.1	1.48165
n_r	706.5	1.48379
n_C	656.3	1.48480
$n_{C'}$	643.8	1.48508
$n_{632.8}$	632.8	1.48534
n_D	589.3	1.48651
n_d	587.6	1.48656
n_e	546.1	1.48794
n_F	486.1	1.49056
$n_{F'}$	480.0	1.49088
n_g	435.8	1.49364
n_h	404.7	1.49618
n_i	365.0	1.50046
$n_{334.1}$	334.1	1.50501
$n_{312.6}$	312.6	1.50911
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.971247817
B_2	0.216901417
B_3	0.904651666
C_1	0.00472301995
C_2	0.0153575612
C_3	168.68133

Constants of Dispersion dn/dT

D_0	$-1.83 \cdot 10^{-5}$
D_1	$-7.89 \cdot 10^{-9}$
D_2	$-1.63 \cdot 10^{-12}$
E_0	$3.74 \cdot 10^{-7}$
E_1	$3.46 \cdot 10^{-10}$
λ_{TK} [µm]	0.15

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.891	0.750
2325	0.933	0.840
1970	0.976	0.940
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.995
660	0.998	0.995
620	0.998	0.996
580	0.999	0.997
546	0.999	0.997
500	0.998	0.996
460	0.997	0.993
436	0.997	0.992
420	0.997	0.992
405	0.997	0.993
400	0.997	0.993
390	0.997	0.992
380	0.995	0.988
370	0.990	0.976
365	0.985	0.963
350	0.948	0.875
334	0.831	0.630
320	0.618	0.300
310	0.428	0.120
300	0.262	0.035
290	0.137	0.010
280	0.058	
270		
260		
250		

Color Code

λ_{80}/λ_5	34/28
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2879
$P_{C,s}$	0.5465
$P_{d,C}$	0.3062
$P_{e,d}$	0.2388
$P_{g,F}$	0.5359
$P_{i,h}$	0.7429
$P'_{s,t}$	0.2858
$P'_{C',s}$	0.5909
$P'_{d,C'}$	0.2554
$P'_{e,d}$	0.2370
$P'_{g,F'}$	0.4759
$P'_{i,h}$	0.7373

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

$\Delta P_{C,t}$	-0.1112
$\Delta P_{C,s}$	-0.0533
$\Delta P_{F,e}$	0.0110
$\Delta P_{g,F}$	0.0342
$\Delta P_{i,g}$	0.1675

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	12.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	14.8
T_g [°C]	464
$T_{10}^{13.0}$ [°C]	463
$T_{10}^{7.6}$ [°C]	527
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.760
AT [°C]	503
ρ [g/cm^3]	3.68
E [10^3 N/mm^2]	73
µ	0.302
K [10^{-6} mm^2/N]	0.70
$HK_{0.1/20}$	345
HG	6
HG-J	528
B	1
CR	1
FR	0
SR	52.3
AR	2.2
PR	4.3
SR-J	3
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	-4.9	-4.6	-4.3	-6.9	-6.6	-6.4
+20/ +40	-6.0	-5.7	-5.3	-7.3	-7.0	-6.7
+60/ +80	-6.5	-6.2	-5.8	-7.5	-7.2	-6.9

Data Sheet

SCHOTT

N-PK51
529770.386

$n_d = 1.52855$	$\nu_d = 76.98$	$n_F - n_C = 0.006867$
$n_e = 1.53019$	$\nu_e = 76.58$	$n_{F'} - n_{C'} = 0.006923$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.50987
$n_{1970.1}$	1970.1	1.51312
$n_{1529.6}$	1529.6	1.51665
$n_{1060.0}$	1060.0	1.52045
n_t	1014.0	1.52089
n_s	852.1	1.52278
n_r	706.5	1.52527
n_C	656.3	1.52646
$n_{C'}$	643.8	1.52680
$n_{632.8}$	632.8	1.52711
n_D	589.3	1.52849
n_d	587.6	1.52855
n_e	546.1	1.53019
n_F	486.1	1.53333
$n_{F'}$	480.0	1.53372
n_g	435.8	1.53704
n_h	404.7	1.54010
n_i	365.0	1.54527
$n_{334.1}$	334.1	1.55079
$n_{312.6}$	312.6	1.55579
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.15610775
B_2	0.153229344
B_3	0.785618966
C_1	0.00585597402
C_2	0.0194072416
C_3	140.537046

Constants of Dispersion dn/dT

D_0	$-1.98 \cdot 10^{-5}$
D_1	$-6.06 \cdot 10^{-9}$
D_2	$1.60 \cdot 10^{-11}$
E_0	$4.16 \cdot 10^{-7}$
E_1	$5.01 \cdot 10^{-10}$
λ_{TK} [µm]	0.134

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.919	0.810
2325	0.941	0.860
1970	0.976	0.940
1530	0.994	0.985
1060	0.998	0.994
700	0.997	0.992
660	0.996	0.991
620	0.997	0.992
580	0.998	0.995
546	0.998	0.996
500	0.997	0.993
460	0.995	0.988
436	0.994	0.984
420	0.994	0.984
405	0.994	0.986
400	0.994	0.986
390	0.994	0.984
380	0.989	0.973
370	0.982	0.955
365	0.976	0.940
350	0.933	0.840
334	0.815	0.600
320	0.601	0.280
310	0.398	0.100
300	0.209	0.020
290	0.063	
280	0.010	
270	0.001	
260		
250		

Color Code

λ_{80}/λ_5	34/29
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2750
$P_{C,s}$	0.5360
$P_{d,C}$	0.3046
$P_{e,d}$	0.2387
$P_{g,F}$	0.5401
$P_{i,h}$	0.7535
$P'_{s,t}$	0.2727
$P'_{C',s}$	0.5797
$P'_{d,C'}$	0.2540
$P'_{e,d}$	0.2367
$P'_{g,F'}$	0.4794
$P'_{i,h}$	0.7473

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

$\Delta P_{C,t}$	-0.0991
$\Delta P_{C,s}$	-0.0463
$\Delta P_{F,e}$	0.0088
$\Delta P_{g,F}$	0.0258
$\Delta P_{i,g}$	0.1203

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	12.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	14.1
T_g [°C]	487
$T_{10}^{13.0}$ [°C]	488
$T_{10}^{7.6}$ [°C]	568
c_p [J/(g·K)]	0.620
λ [W/(m·K)]	0.650
AT [°C]	528
ρ [g/cm^3]	3.86
E [10^3 N/mm^2]	74
µ	0.295
K [10^{-6} mm^2/N]	0.54
$HK_{0.1/20}$	415
HG	6
HG-J	592
B	1
CR	1
FR	0
SR	52.3
AR	3.3
PR	4.3
SR-J	3
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	-6.0	-5.7	-5.4	-8.1	-7.8	-7.5
+20/ +40	-7.1	-6.7	-6.4	-8.4	-8.1	-7.7
+60/ +80	-7.5	-7.1	-6.7	-8.6	-8.2	-7.8

Data Sheet

SCHOTT

N-PK52A
497816.370

$n_d = 1.49700$	$\nu_d = 81.61$	$n_F - n_C = 0.006090$
$n_e = 1.49845$	$\nu_e = 81.21$	$n_{F'} - n_{C'} = 0.006138$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.47966
$n_{1970.1}$	1970.1	1.48279
$n_{1529.6}$	1529.6	1.48616
$n_{1060.0}$	1060.0	1.48971
n_t	1014.0	1.49012
n_s	852.1	1.49184
n_r	706.5	1.49408
n_C	656.3	1.49514
$n_{C'}$	643.8	1.49544
$n_{632.8}$	632.8	1.49571
n_D	589.3	1.49695
n_d	587.6	1.49700
n_e	546.1	1.49845
n_F	486.1	1.50123
$n_{F'}$	480.0	1.50157
n_g	435.8	1.50450
n_h	404.7	1.50720
n_i	365.0	1.51175
$n_{334.1}$	334.1	1.51658
$n_{312.6}$	312.6	1.52096
$n_{296.7}$	296.7	1.52489
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.029607
B_2	0.1880506
B_3	0.736488165
C_1	0.00516800155
C_2	0.0166658798
C_3	138.964129

Constants of Dispersion dn/dT

D_0	$-1.97 \cdot 10^{-5}$
D_1	$-5.50 \cdot 10^{-9}$
D_2	$5.28 \cdot 10^{-12}$
E_0	$3.60 \cdot 10^{-7}$
E_1	$2.45 \cdot 10^{-10}$
λ_{TK} [µm]	0.172

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.987	0.967
2325	0.991	0.978
1970	0.996	0.990
1530	0.998	0.994
1060	0.998	0.994
700	0.997	0.993
660	0.997	0.993
620	0.998	0.995
580	0.999	0.997
546	0.999	0.997
500	0.998	0.996
460	0.997	0.992
436	0.996	0.990
420	0.996	0.990
405	0.997	0.992
400	0.997	0.992
390	0.997	0.992
380	0.996	0.989
370	0.992	0.980
365	0.988	0.970
350	0.950	0.880
334	0.831	0.630
320	0.618	0.300
310	0.428	0.120
300	0.250	0.040
290	0.120	0.010
280	0.044	
270	0.014	
260		
250		

Color Code

λ_{80}/λ_5	34/28
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2819
$P_{C,s}$	0.5417
$P_{d,C}$	0.3055
$P_{e,d}$	0.2388
$P_{g,F}$	0.5377
$P_{i,h}$	0.7470
$P'_{s,t}$	0.2797
$P'_{C',s}$	0.5858
$P'_{d,C'}$	0.2548
$P'_{e,d}$	0.2369
$P'_{g,F'}$	0.4774
$P'_{i,h}$	0.7412

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

$\Delta P_{C,t}$	-0.1084
$\Delta P_{C,s}$	-0.0514
$\Delta P_{F,e}$	0.0103
$\Delta P_{g,F}$	0.0311
$\Delta P_{i,g}$	0.1497

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	13.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	15.0
T_g [°C]	467
$T_{10}^{13.0}$ [°C]	467
$T_{10}^{7.6}$ [°C]	538
c_p [J/(g·K)]	0.670
λ [W/(m·K)]	0.730
AT [°C]	520
ρ [g/cm^3]	3.70
E [10^3 N/mm^2]	71
µ	0.298
K [10^{-6} mm^2/N]	0.67
HK$_{0.1/20}$	355
HG	6
HG-J	526
B	1
CR	1
FR	0
SR	52.3
AR	3.3
PR	4.3
SR-J	4
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	-5.7	-5.4	-5.1	-7.7	-7.4	-7.1
+20/ +40	-6.7	-6.4	-6.0	-8.0	-7.7	-7.4
+60/ +80	-7.1	-6.8	-6.4	-8.1	-7.8	-7.5

Data Sheet

SCHOTT

P-PK53
527662.283

$n_d = 1.52690$	$\nu_d = 66.22$	$n_F - n_C = 0.007957$
$n_e = 1.52880$	$\nu_e = 65.92$	$n_{F'} - n_{C'} = 0.008022$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	
$n_{1970.1}$	1970.1	1.50808
$n_{1529.6}$	1529.6	1.51265
$n_{1060.0}$	1060.0	1.51738
n_t	1014.0	1.51792
n_s	852.1	1.52017
n_r	706.5	1.52309
n_C	656.3	1.52447
$n_{C'}$	643.8	1.52486
$n_{632.8}$	632.8	1.52522
n_D	589.3	1.52683
n_d	587.6	1.52690
n_e	546.1	1.52880
n_F	486.1	1.53243
$n_{F'}$	480.0	1.53288
n_g	435.8	1.53673
n_h	404.7	1.54029
n_i	365.0	1.54633
$n_{334.1}$	334.1	1.55280
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.960316767
B_2	0.340437227
B_3	0.777865595
C_1	0.00531032986
C_2	0.0175073434
C_3	106.87533

Constants of Dispersion dn/dT

D_0	$-1.65 \cdot 10^{-5}$
D_1	$-5.14 \cdot 10^{-10}$
D_2	$-2.02 \cdot 10^{-11}$
E_0	$4.11 \cdot 10^{-7}$
E_1	$4.17 \cdot 10^{-10}$
λ_{TK} [µm]	0.208

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.468	0.150
2325	0.574	0.250
1970	0.787	0.550
1530	0.981	0.954
1060	0.998	0.994
700	0.997	0.992
660	0.997	0.992
620	0.998	0.994
580	0.998	0.996
546	0.999	0.997
500	0.998	0.995
460	0.996	0.990
436	0.995	0.987
420	0.994	0.985
405	0.994	0.985
400	0.994	0.985
390	0.990	0.976
380	0.980	0.950
370	0.959	0.900
365	0.941	0.860
350	0.815	0.600
334	0.515	0.190
320	0.181	0.010
310	0.039	
300	0.003	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/31
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding, will become inquiry glass as of Jan 2014, not recommended for new design

Relative Partial Dispersion

$P_{s,t}$	0.2829
$P_{C,s}$	0.5408
$P_{d,C}$	0.3049
$P_{e,d}$	0.2386
$P_{g,F}$	0.5408
$P_{i,h}$	0.7592
$P'_{s,t}$	0.2806
$P'_{C',s}$	0.5846
$P'_{d,C'}$	0.2542
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4802
$P'_{i,h}$	0.7530

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

$\Delta P_{C,t}$	-0.0354
$\Delta P_{C,s}$	-0.0165
$\Delta P_{F,e}$	0.0030
$\Delta P_{g,F}$	0.0084
$\Delta P_{i,g}$	0.0375

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	13.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	16.0
T_g [°C]	383
$T_{10}^{13.0}$ [°C]	390
$T_{10}^{7.6}$ [°C]	453
c_p [J/(g·K)]	0.770
λ [W/(m·K)]	0.640
AT [°C]	418
ρ [g/cm^3]	2.83
E [10^3 N/mm^2]	59
µ	0.271
K [10^{-6} mm^2/N]	2.06
$HK_{0.1/20}$	335
HG	6
HG-J	977
B	1
CR	2
FR	1
SR	51
AR	4.3
PR	4.3
SR-J	3
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	-4.9	-4.5	-4.1	-7.0	-6.6	-6.2
+20/ +40	-5.6	-5.2	-4.7	-6.9	-6.5	-6.1
+60/ +80	-6.0	-5.5	-5.0	-7.0	-6.5	-6.0

Data Sheet

SCHOTT

N-PSK3
552635.291

$n_d = 1.55232$	$\nu_d = 63.46$	$n_F - n_C = 0.008704$
$n_e = 1.55440$	$\nu_e = 63.23$	$n_{F'} - n_{C'} = 0.008767$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.52375
$n_{1970.1}$	1970.1	1.52954
$n_{1529.6}$	1529.6	1.53558
$n_{1060.0}$	1060.0	1.54154
n_t	1014.0	1.54218
n_s	852.1	1.54482
n_r	706.5	1.54811
n_C	656.3	1.54965
$n_{C'}$	643.8	1.55008
$n_{632.8}$	632.8	1.55048
n_D	589.3	1.55224
n_d	587.6	1.55232
n_e	546.1	1.55440
n_F	486.1	1.55835
$n_{F'}$	480.0	1.55885
n_g	435.8	1.56302
n_h	404.7	1.56688
n_i	365.0	1.57342
$n_{334.1}$	334.1	1.58041
$n_{312.6}$	312.6	1.58679
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.88727211
B_2	0.489592425
B_3	1.04865296
C_1	0.00469824067
C_2	0.0161818463
C_3	104.374975

Constants of Dispersion dn/dT

D_0	$2.03 \cdot 10^{-6}$
D_1	$1.19 \cdot 10^{-8}$
D_2	$2.46 \cdot 10^{-11}$
E_0	$3.14 \cdot 10^{-7}$
E_1	$2.45 \cdot 10^{-10}$
λ_{TK} [µm]	0.235

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.648	0.338
2325	0.809	0.588
1970	0.949	0.877
1530	0.991	0.978
1060	0.999	0.997
700	0.998	0.995
660	0.997	0.993
620	0.997	0.992
580	0.997	0.993
546	0.997	0.993
500	0.996	0.990
460	0.995	0.987
436	0.994	0.986
420	0.994	0.986
405	0.995	0.987
400	0.994	0.986
390	0.993	0.983
380	0.991	0.977
370	0.988	0.971
365	0.985	0.964
350	0.967	0.920
334	0.915	0.800
320	0.770	0.520
310	0.583	0.260
300	0.325	0.060
290	0.123	
280	0.026	
270		
260		
250		

Color Code

λ_{80}/λ_5	33/28
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.3023
$P_{C,s}$	0.5555
$P_{d,C}$	0.3069
$P_{e,d}$	0.2386
$P_{g,F}$	0.5365
$P_{i,h}$	0.7509
$P'_{s,t}$	0.3001
$P'_{C',s}$	0.6002
$P'_{d,C'}$	0.2559
$P'_{e,d}$	0.2369
$P'_{g,F'}$	0.4767
$P'_{i,h}$	0.7454

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

$\Delta P_{C,t}$	0.0118
$\Delta P_{C,s}$	0.0047
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0005
$\Delta P_{i,g}$	0.0016

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	599
$T_{10}^{13.0}$ [°C]	597
$T_{10}^{7.6}$ [°C]	736
c_p [J/(g·K)]	0.682
λ [W/(m·K)]	0.990
ρ [g/cm^3]	2.91
E [10^3 N/mm^2]	84
µ	0.226
K [10^{-6} mm^2/N]	2.48
HK$_{0.1/20}$	630
HG	2
B	1
CR	3
FR	0
SR	2.2
AR	2
PR	2

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	2.6	3.1	3.6	0.6	1.0	1.5
+20/ +40	2.5	3.0	3.5	1.2	1.6	2.1
+60/ +80	2.7	3.2	3.8	1.7	2.2	2.7

Data Sheet

SCHOTT

N-PSK53A
618634.357

$n_d = 1.61800$	$\nu_d = 63.39$	$n_F - n_C = 0.009749$
$n_e = 1.62033$	$\nu_e = 63.10$	$n_{F'} - n_{C'} = 0.009831$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.59015
$n_{1970.1}$	1970.1	1.59528
$n_{1529.6}$	1529.6	1.60073
$n_{1060.0}$	1060.0	1.60641
n_t	1014.0	1.60706
n_s	852.1	1.60979
n_r	706.5	1.61334
n_C	656.3	1.61503
$n_{C'}$	643.8	1.61550
$n_{632.8}$	632.8	1.61595
n_D	589.3	1.61791
n_d	587.6	1.61800
n_e	546.1	1.62033
n_F	486.1	1.62478
$n_{F'}$	480.0	1.62534
n_g	435.8	1.63007
n_h	404.7	1.63445
n_i	365.0	1.64190
$n_{334.1}$	334.1	1.64991
$n_{312.6}$	312.6	1.65724
$n_{296.7}$	296.7	1.66390
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.38121836
B_2	0.196745645
B_3	0.886089205
C_1	0.00706416337
C_2	0.0233251345
C_3	97.4847345

Constants of Dispersion dn/dT

D_0	$-9.28 \cdot 10^{-6}$
D_1	$7.19 \cdot 10^{-9}$
D_2	$1.45 \cdot 10^{-12}$
E_0	$4.06 \cdot 10^{-7}$
E_1	$3.17 \cdot 10^{-10}$
λ_{TK} [µm]	0.19

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.609	0.290
2325	0.764	0.510
1970	0.915	0.800
1530	0.982	0.956
1060	0.998	0.994
700	0.998	0.994
660	0.997	0.993
620	0.997	0.992
580	0.998	0.994
546	0.998	0.995
500	0.997	0.992
460	0.994	0.986
436	0.993	0.982
420	0.992	0.979
405	0.988	0.970
400	0.985	0.964
390	0.976	0.940
380	0.959	0.900
370	0.928	0.830
365	0.905	0.780
350	0.776	0.530
334	0.525	0.200
320	0.230	0.030
310	0.061	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/31
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2797
$P_{C,s}$	0.5380
$P_{d,C}$	0.3044
$P_{e,d}$	0.2385
$P_{g,F}$	0.5424
$P_{i,h}$	0.7642
$P'_{s,t}$	0.2774
$P'_{C',s}$	0.5816
$P'_{d,C'}$	0.2538
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4815
$P'_{i,h}$	0.7578

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

$\Delta P_{C,t}$	-0.0279
$\Delta P_{C,s}$	-0.0127
$\Delta P_{F,e}$	0.0020
$\Delta P_{g,F}$	0.0052
$\Delta P_{i,g}$	0.0208

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.8
T_g [°C]	606
$T_{10}^{13.0}$ [°C]	609
$T_{10}^{7.6}$ [°C]	699
c_p [J/(g·K)]	0.590
λ [W/(m·K)]	0.640
ρ [g/cm^3]	3.57
E [10^3 N/mm^2]	76
μ	0.288
K [10^{-6} mm^2/N]	1.16
HK$_{0.1/20}$	415
HG	6
B	1
CR	1
FR	1
SR	53.3
AR	2.3
PR	4.3

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	-2.6	-2.1	-1.6	-4.7	-4.3	-3.8
+20/ +40	-2.9	-2.4	-1.8	-4.3	-3.8	-3.3
+60/ +80	-2.9	-2.3	-1.8	-4.0	-3.5	-2.9

Data Sheet

SCHOTT

N-BK7
517642.251

$n_d = 1.51680$	$\nu_d = 64.17$	$n_F - n_C = 0.008054$
$n_e = 1.51872$	$\nu_e = 63.96$	$n_{F'} - n_{C'} = 0.008110$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.48921
$n_{1970.1}$	1970.1	1.49495
$n_{1529.6}$	1529.6	1.50091
$n_{1060.0}$	1060.0	1.50669
n_t	1014.0	1.50731
n_s	852.1	1.50980
n_r	706.5	1.51289
n_C	656.3	1.51432
$n_{C'}$	643.8	1.51472
$n_{632.8}$	632.8	1.51509
n_D	589.3	1.51673
n_d	587.6	1.51680
n_e	546.1	1.51872
n_F	486.1	1.52238
$n_{F'}$	480.0	1.52283
n_g	435.8	1.52668
n_h	404.7	1.53024
n_i	365.0	1.53627
$n_{334.1}$	334.1	1.54272
$n_{312.6}$	312.6	1.54862
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.03961212
B_2	0.231792344
B_3	1.01046945
C_1	0.00600069867
C_2	0.0200179144
C_3	103.560653

Constants of Dispersion dn/dT

D_0	$1.86 \cdot 10^{-6}$
D_1	$1.31 \cdot 10^{-8}$
D_2	$-1.37 \cdot 10^{-11}$
E_0	$4.34 \cdot 10^{-7}$
E_1	$6.27 \cdot 10^{-10}$
λ_{TK} [µm]	0.17

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.665	0.360
2325	0.793	0.560
1970	0.933	0.840
1530	0.992	0.980
1060	0.999	0.997
700	0.998	0.996
660	0.998	0.994
620	0.998	0.994
580	0.998	0.995
546	0.998	0.996
500	0.998	0.994
460	0.997	0.993
436	0.997	0.992
420	0.997	0.993
405	0.997	0.993
400	0.997	0.992
390	0.996	0.989
380	0.993	0.983
370	0.991	0.977
365	0.988	0.971
350	0.967	0.920
334	0.905	0.780
320	0.770	0.520
310	0.574	0.250
300	0.292	0.050
290	0.063	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.3098
$P_{C,s}$	0.5612
$P_{d,C}$	0.3076
$P_{e,d}$	0.2386
$P_{g,F}$	0.5349
$P_{i,h}$	0.7483
$P'_{s,t}$	0.3076
$P'_{C',s}$	0.6062
$P'_{d,C'}$	0.2566
$P'_{e,d}$	0.2370
$P'_{g,F'}$	0.4754
$P'_{i,h}$	0.7432

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

$\Delta P_{C,t}$	0.0216
$\Delta P_{C,s}$	0.0087
$\Delta P_{F,e}$	-0.0009
$\Delta P_{g,F}$	-0.0009
$\Delta P_{i,g}$	0.0035

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.3
T_g [°C]	557
$T_{10}^{13.0}$ [°C]	557
$T_{10}^{7.6}$ [°C]	719
c_p [J/(g·K)]	0.858
λ [W/(m·K)]	1.114
ρ [g/cm^3]	2.51
E [10^3 N/mm^2]	82
µ	0.206
K [10^{-6} mm^2/N]	2.77
HK$_{0.1/20}$	610
HG	3
B	0
CR	1
FR	0
SR	1
AR	2.3
PR	2.3

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	2.4	2.9	3.3	0.3	0.8	1.2
+20/ +40	2.4	3.0	3.5	1.1	1.6	2.1
+60/ +80	2.5	3.1	3.7	1.5	2.1	2.7

Data Sheet

SCHOTT

N-BK7HT
517642.251

$n_d = 1.51680$	$\nu_d = 64.17$	$n_F - n_C = 0.008054$
$n_e = 1.51872$	$\nu_e = 63.96$	$n_{F'} - n_{C'} = 0.008110$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.48921
$n_{1970.1}$	1970.1	1.49495
$n_{1529.6}$	1529.6	1.50091
$n_{1060.0}$	1060.0	1.50669
n_t	1014.0	1.50731
n_s	852.1	1.50980
n_r	706.5	1.51289
n_C	656.3	1.51432
$n_{C'}$	643.8	1.51472
$n_{632.8}$	632.8	1.51509
n_D	589.3	1.51673
n_d	587.6	1.51680
n_e	546.1	1.51872
n_F	486.1	1.52238
$n_{F'}$	480.0	1.52283
n_g	435.8	1.52668
n_h	404.7	1.53024
n_i	365.0	1.53627
$n_{334.1}$	334.1	1.54272
$n_{312.6}$	312.6	1.54862
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.03961212
B_2	0.231792344
B_3	1.01046945
C_1	0.00600069867
C_2	0.0200179144
C_3	103.560653

Constants of Dispersion dn/dT

D_0	$1.86 \cdot 10^{-6}$
D_1	$1.31 \cdot 10^{-8}$
D_2	$-1.37 \cdot 10^{-11}$
E_0	$4.34 \cdot 10^{-7}$
E_1	$6.27 \cdot 10^{-10}$
λ_{TK} [µm]	0.17

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.752	0.490
2325	0.845	0.657
1970	0.954	0.888
1530	0.995	0.987
1060	0.999	0.999
700	0.999	0.998
660	0.999	0.997
620	0.999	0.997
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.996
436	0.998	0.996
420	0.998	0.996
405	0.998	0.996
400	0.998	0.996
390	0.998	0.994
380	0.997	0.992
370	0.996	0.989
365	0.994	0.985
350	0.985	0.964
334	0.948	0.875
320	0.815	0.600
310	0.567	0.242
300	0.221	0.023
290	0.040	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.3098
$P_{C,s}$	0.5612
$P_{d,C}$	0.3076
$P_{e,d}$	0.2386
$P_{g,F}$	0.5349
$P_{i,h}$	0.7483
$P'_{s,t}$	0.3076
$P'_{C',s}$	0.6062
$P'_{d,C'}$	0.2566
$P'_{e,d}$	0.2370
$P'_{g,F'}$	0.4754
$P'_{i,h}$	0.7432

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

$\Delta P_{C,t}$	0.0216
$\Delta P_{C,s}$	0.0087
$\Delta P_{F,e}$	-0.0009
$\Delta P_{g,F}$	-0.0009
$\Delta P_{i,g}$	0.0035

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.3
T_g [°C]	557
$T_{10}^{13.0}$ [°C]	557
$T_{10}^{7.6}$ [°C]	719
c_p [J/(g·K)]	0.858
λ [W/(m·K)]	1.114
ρ [g/cm^3]	2.51
E [10^3 N/mm^2]	82
µ	0.206
K [10^{-6} mm^2/N]	2.77
HK$_{0.1/20}$	610
HG	3
B	0
CR	1
FR	0
SR	1
AR	2.3
PR	2.3

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	2.4	2.9	3.3	0.3	0.8	1.2
+20/ +40	2.4	3.0	3.5	1.1	1.6	2.1
+60/ +80	2.5	3.1	3.7	1.5	2.1	2.7

Data Sheet

SCHOTT

N-BK10
498670.239

$n_d = 1.49782$	$\nu_d = 66.95$	$n_F - n_C = 0.007435$
$n_e = 1.49960$	$\nu_e = 66.78$	$n_{F'} - n_{C'} = 0.007481$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.47060
$n_{1970.1}$	1970.1	1.47647
$n_{1529.6}$	1529.6	1.48252
$n_{1060.0}$	1060.0	1.48827
n_t	1014.0	1.48887
n_s	852.1	1.49127
n_r	706.5	1.49419
n_C	656.3	1.49552
$n_{C'}$	643.8	1.49589
$n_{632.8}$	632.8	1.49623
n_D	589.3	1.49775
n_d	587.6	1.49782
n_e	546.1	1.49960
n_F	486.1	1.50296
$n_{F'}$	480.0	1.50337
n_g	435.8	1.50690
n_h	404.7	1.51014
n_i	365.0	1.51561
$n_{334.1}$	334.1	1.52144
$n_{312.6}$	312.6	1.52674
$n_{296.7}$	296.7	1.53151
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.888308131
B_2	0.328964475
B_3	0.984610769
C_1	0.00516900822
C_2	0.0161190045
C_3	99.7575331

Constants of Dispersion dn/dT

D_0	$3.32 \cdot 10^{-6}$
D_1	$1.72 \cdot 10^{-8}$
D_2	$-2.05 \cdot 10^{-11}$
E_0	$3.57 \cdot 10^{-7}$
E_1	$3.90 \cdot 10^{-10}$
λ_{TK} [µm]	0.169

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.739	0.470
2325	0.872	0.710
1970	0.980	0.950
1530	0.992	0.980
1060	0.998	0.996
700	0.998	0.995
660	0.997	0.993
620	0.997	0.992
580	0.997	0.993
546	0.997	0.993
500	0.996	0.991
460	0.996	0.990
436	0.996	0.989
420	0.996	0.989
405	0.996	0.990
400	0.996	0.990
390	0.996	0.989
380	0.994	0.985
370	0.994	0.986
365	0.994	0.986
350	0.991	0.978
334	0.978	0.947
320	0.941	0.860
310	0.872	0.710
300	0.707	0.420
290	0.414	0.110
280	0.123	
270	0.010	
260		
250		

Color Code

λ_{80}/λ_5	31/27
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.3224
$P_{C,s}$	0.5716
$P_{d,C}$	0.3093
$P_{e,d}$	0.2387
$P_{g,F}$	0.5303
$P_{i,h}$	0.7360
$P'_{s,t}$	0.3204
$P'_{C',s}$	0.6174
$P'_{d,C'}$	0.2580
$P'_{e,d}$	0.2373
$P'_{g,F'}$	0.4716
$P'_{i,h}$	0.7315

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

$\Delta P_{C,t}$	0.0314
$\Delta P_{C,s}$	0.0126
$\Delta P_{F,e}$	-0.0012
$\Delta P_{g,F}$	-0.0008
$\Delta P_{i,g}$	0.0091

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.6
T_g [°C]	551
$T_{10}^{13.0}$ [°C]	0
$T_{10}^{7.6}$ [°C]	753
c_p [J/(g·K)]	0.810
λ [W/(m·K)]	1.320
ρ [g/cm^3]	2.39
E [10^3 N/mm^2]	71
μ	0.203
K [10^{-6} mm^2/N]	3.21
HK$_{0.1/20}$	560
HG	4
B	1
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	2.7	3.1	3.5	0.7	1.1	1.4
+20/ +40	2.9	3.4	3.8	1.6	2.1	2.5
+60/ +80	3.1	3.7	4.1	2.1	2.6	3.1

Data Sheet

SCHOTT

K7
511604.253

$n_d = 1.51112$	$\nu_d = 60.41$	$n_F - n_C = 0.008461$
$n_e = 1.51314$	$\nu_e = 60.15$	$n_{F'} - n_{C'} = 0.008531$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.48553
$n_{1970.1}$	1970.1	1.49046
$n_{1529.6}$	1529.6	1.49565
$n_{1060.0}$	1060.0	1.50091
n_t	1014.0	1.50150
n_s	852.1	1.50394
n_r	706.5	1.50707
n_C	656.3	1.50854
$n_{C'}$	643.8	1.50895
$n_{632.8}$	632.8	1.50934
n_D	589.3	1.51105
n_d	587.6	1.51112
n_e	546.1	1.51314
n_F	486.1	1.51700
$n_{F'}$	480.0	1.51748
n_g	435.8	1.52159
n_h	404.7	1.52540
n_i	365.0	1.53189
$n_{334.1}$	334.1	1.53891
$n_{312.6}$	312.6	1.54537
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.1273555
B_2	0.124412303
B_3	0.827100531
C_1	0.00720341707
C_2	0.0269835916
C_3	100.384588

Constants of Dispersion dn/dT

D_0	$-1.67 \cdot 10^{-6}$
D_1	$8.80 \cdot 10^{-9}$
D_2	$-2.86 \cdot 10^{-11}$
E_0	$5.42 \cdot 10^{-7}$
E_1	$7.81 \cdot 10^{-10}$
λ_{TK} [µm]	0.172

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.650	0.340
2325	0.758	0.500
1970	0.910	0.790
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.994
546	0.998	0.994
500	0.997	0.993
460	0.996	0.990
436	0.996	0.990
420	0.996	0.990
405	0.996	0.990
400	0.996	0.990
390	0.995	0.988
380	0.993	0.983
370	0.990	0.976
365	0.988	0.971
350	0.976	0.940
334	0.905	0.780
320	0.707	0.420
310	0.398	0.100
300	0.090	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2880
$P_{C,s}$	0.5436
$P_{d,C}$	0.3049
$P_{e,d}$	0.2385
$P_{g,F}$	0.5422
$P_{i,h}$	0.7677
$P'_{s,t}$	0.2857
$P'_{C',s}$	0.5874
$P'_{d,C'}$	0.2542
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4814
$P'_{i,h}$	0.7614

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

$\Delta P_{C,t}$	0.0001
$\Delta P_{C,s}$	-0.0001
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	0.0000
$\Delta P_{i,g}$	-0.0001

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.7
T_g [°C]	513
$T_{10}^{13.0}$ [°C]	0
$T_{10}^{7.6}$ [°C]	712
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	2.53
E [10^3 N/mm^2]	69
µ	0.214
K [10^{-6} mm^2/N]	2.95
HK$_{0.1/20}$	520
HG	3
B	1
CR	3
FR	0
SR	2
AR	1
PR	2.3

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	1.6	2.1	-1.0	-0.4	0.1
+20/ +40	0.9	1.6	2.2	-0.4	0.2	0.9
+60/ +80	0.8	1.6	2.3	-0.2	0.6	1.2

Data Sheet

SCHOTT

K10
501564.252

$n_d = 1.50137$	$\nu_d = 56.41$	$n_F - n_C = 0.008888$
$n_e = 1.50349$	$\nu_e = 56.15$	$n_{F'} - n_{C'} = 0.008967$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.47507
$n_{1970.1}$	1970.1	1.48008
$n_{1529.6}$	1529.6	1.48536
$n_{1060.0}$	1060.0	1.49076
n_t	1014.0	1.49137
n_s	852.1	1.49389
n_r	706.5	1.49713
n_C	656.3	1.49867
$n_{C'}$	643.8	1.49910
$n_{632.8}$	632.8	1.49950
n_D	589.3	1.50129
n_d	587.6	1.50137
n_e	546.1	1.50349
n_F	486.1	1.50756
$n_{F'}$	480.0	1.50807
n_g	435.8	1.51243
n_h	404.7	1.51649
n_i	365.0	1.52350
$n_{334.1}$	334.1	1.53120
$n_{312.6}$	312.6	1.53844
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.15687082
B_2	0.0642625444
B_3	0.872376139
C_1	0.00809424251
C_2	0.0386051284
C_3	104.74773

Constants of Dispersion dn/dT

D_0	$4.86 \cdot 10^{-6}$
D_1	$1.72 \cdot 10^{-8}$
D_2	$-3.02 \cdot 10^{-11}$
E_0	$3.82 \cdot 10^{-7}$
E_1	$4.53 \cdot 10^{-10}$
λ_{TK} [µm]	0.26

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.770	0.520
2325	0.831	0.630
1970	0.937	0.850
1530	0.993	0.983
1060	0.998	0.996
700	0.999	0.997
660	0.998	0.994
620	0.997	0.993
580	0.997	0.993
546	0.997	0.992
500	0.996	0.991
460	0.996	0.990
436	0.995	0.988
420	0.995	0.988
405	0.995	0.987
400	0.994	0.986
390	0.993	0.982
380	0.989	0.973
370	0.986	0.966
365	0.983	0.958
350	0.963	0.910
334	0.877	0.720
320	0.626	0.310
310	0.370	0.130
300	0.140	0.020
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/30
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2835
$P_{C,s}$	0.5385
$P_{d,C}$	0.3037
$P_{e,d}$	0.2382
$P_{g,F}$	0.5475
$P_{i,h}$	0.7888
$P'_{s,t}$	0.2810
$P'_{C',s}$	0.5817
$P'_{d,C'}$	0.2531
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4860
$P'_{i,h}$	0.7819

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

$\Delta P_{C,t}$	0.0094
$\Delta P_{C,s}$	0.0041
$\Delta P_{F,e}$	-0.0007
$\Delta P_{g,F}$	-0.0015
$\Delta P_{i,g}$	-0.0048

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	459
$T_{10}^{13.0}$ [°C]	453
$T_{10}^{7.6}$ [°C]	691
c_p [J/(g·K)]	0.770
λ [W/(m·K)]	1.120
ρ [g/cm^3]	2.52
E [10^3 N/mm^2]	65
µ	0.190
K [10^{-6} mm^2/N]	3.12
HK$_{0.1/20}$	470
HG	4
B	1
CR	1
FR	0
SR	1
AR	1
PR	1.2

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	3.3	3.9	4.5	1.3	1.8	2.4
+20/ +40	3.6	4.2	4.9	2.3	2.9	3.6
+60/ +80	3.8	4.5	5.2	2.8	3.4	4.2

Data Sheet

SCHOTT

N-K5
522595.259

$n_d = 1.52249$	$\nu_d = 59.48$	$n_F - n_C = 0.008784$
$n_e = 1.52458$	$\nu_e = 59.22$	$n_{F'} - n_{C'} = 0.008858$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.49656
$n_{1970.1}$	1970.1	1.50146
$n_{1529.6}$	1529.6	1.50664
$n_{1060.0}$	1060.0	1.51197
n_t	1014.0	1.51257
n_s	852.1	1.51507
n_r	706.5	1.51829
n_C	656.3	1.51982
$n_{C'}$	643.8	1.52024
$n_{632.8}$	632.8	1.52064
n_D	589.3	1.52241
n_d	587.6	1.52249
n_e	546.1	1.52458
n_F	486.1	1.52860
$n_{F'}$	480.0	1.52910
n_g	435.8	1.53338
n_h	404.7	1.53734
n_i	365.0	1.54412
$n_{334.1}$	334.1	1.55145
$n_{312.6}$	312.6	1.55821
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.08511833
B_2	0.199562005
B_3	0.930511663
C_1	0.00661099503
C_2	0.024110866
C_3	111.982777

Constants of Dispersion dn/dT

D_0	$-4.13 \cdot 10^{-7}$
D_1	$1.03 \cdot 10^{-8}$
D_2	$-3.40 \cdot 10^{-11}$
E_0	$4.73 \cdot 10^{-7}$
E_1	$5.19 \cdot 10^{-10}$
λ_{TK} [µm]	0.213

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.776	0.530
2325	0.847	0.660
1970	0.946	0.870
1530	0.994	0.986
1060	0.998	0.995
700	0.998	0.994
660	0.997	0.992
620	0.997	0.993
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.996	0.991
436	0.996	0.991
420	0.996	0.991
405	0.996	0.989
400	0.995	0.988
390	0.994	0.984
380	0.991	0.977
370	0.985	0.962
365	0.982	0.956
350	0.950	0.880
334	0.831	0.630
320	0.536	0.210
310	0.221	0.020
300	0.058	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2843
$P_{C,s}$	0.5404
$P_{d,C}$	0.3044
$P_{e,d}$	0.2384
$P_{g,F}$	0.5438
$P_{i,h}$	0.7717
$P'_{s,t}$	0.2819
$P'_{C',s}$	0.5839
$P'_{d,C'}$	0.2538
$P'_{e,d}$	0.2364
$P'_{g,F'}$	0.4828
$P'_{i,h}$	0.7653

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

$\Delta P_{C,t}$	-0.0025
$\Delta P_{C,s}$	-0.0012
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0000
$\Delta P_{i,g}$	-0.0019

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.6
T_g [°C]	546
$T_{10}^{13.0}$ [°C]	540
$T_{10}^{7.6}$ [°C]	720
c_p [J/(g·K)]	0.783
λ [W/(m·K)]	0.950
ρ [g/cm^3]	2.59
E [10^3 N/mm^2]	71
μ	0.224
K [10^{-6} mm^2/N]	3.03
HK$_{0.1/20}$	530
HG	3
B	1
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	1.5	2.1	2.6	-0.6	0.0	0.5
+20/ +40	1.4	2.1	2.7	0.1	0.7	1.4
+60/ +80	1.4	2.1	2.8	0.4	1.1	1.8

Data Sheet

SCHOTT

N-ZK7
508612.249

$n_d = 1.50847$	$\nu_d = 61.19$	$n_F - n_C = 0.008310$
$n_e = 1.51045$	$\nu_e = 60.98$	$n_{F'} - n_{C'} = 0.008370$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.48062
$n_{1970.1}$	1970.1	1.48637
$n_{1529.6}$	1529.6	1.49233
$n_{1060.0}$	1060.0	1.49813
n_t	1014.0	1.49876
n_s	852.1	1.50129
n_r	706.5	1.50445
n_C	656.3	1.50592
$n_{C'}$	643.8	1.50633
$n_{632.8}$	632.8	1.50671
n_D	589.3	1.50840
n_d	587.6	1.50847
n_e	546.1	1.51045
n_F	486.1	1.51423
$n_{F'}$	480.0	1.51470
n_g	435.8	1.51869
n_h	404.7	1.52238
n_i	365.0	1.52865
$n_{334.1}$	334.1	1.53538
$n_{312.6}$	312.6	1.54155
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.07715032
B_2	0.168079109
B_3	0.851889892
C_1	0.00676601657
C_2	0.0230642817
C_3	89.0498778

Constants of Dispersion dn/dT

D_0	$1.15 \cdot 10^{-5}$
D_1	$1.73 \cdot 10^{-8}$
D_2	$-8.06 \cdot 10^{-11}$
E_0	$4.32 \cdot 10^{-7}$
E_1	$7.05 \cdot 10^{-10}$
λ_{TK} [µm]	0.179

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.657	0.350
2325	0.847	0.660
1970	0.971	0.930
1530	0.990	0.976
1060	0.998	0.994
700	0.998	0.996
660	0.998	0.994
620	0.998	0.994
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.995	0.988
436	0.994	0.984
420	0.992	0.981
405	0.991	0.977
400	0.990	0.975
390	0.987	0.969
380	0.982	0.956
370	0.976	0.940
365	0.971	0.930
350	0.941	0.860
334	0.852	0.670
320	0.686	0.390
310	0.492	0.170
300	0.221	0.030
290	0.032	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.3049
$P_{C,s}$	0.5570
$P_{d,C}$	0.3069
$P_{e,d}$	0.2386
$P_{g,F}$	0.5370
$P_{i,h}$	0.7543
$P'_{s,t}$	0.3027
$P'_{C',s}$	0.6017
$P'_{d,C'}$	0.2560
$P'_{e,d}$	0.2369
$P'_{g,F'}$	0.4771
$P'_{i,h}$	0.7488

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

$\Delta P_{C,t}$	0.0267
$\Delta P_{C,s}$	0.0115
$\Delta P_{F,e}$	-0.0017
$\Delta P_{g,F}$	-0.0039
$\Delta P_{i,g}$	-0.0129

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	4.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	5.2
T_g [°C]	539
$T_{10}^{13.0}$ [°C]	0
$T_{10}^{7.6}$ [°C]	721
c_p [J/(g·K)]	0.770
λ [W/(m·K)]	1.042
ρ [g/cm^3]	2.49
E [10^3 N/mm^2]	70
μ	0.214
K [10^{-6} mm^2/N]	3.63
HK$_{0.1/20}$	530
HG	4
B	1
CR	1
FR	0
SR	2
AR	1.2
PR	2.2

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	5.9	6.5	7.0	3.9	4.5	4.9
+20/ +40	6.4	7.0	7.6	5.1	5.7	6.3
+60/ +80	6.4	7.2	7.8	5.4	6.2	6.8

Data Sheet

SCHOTT

N-BAK1
573576.319

$n_d = 1.57250$	$\nu_d = 57.55$	$n_F - n_C = 0.009948$
$n_e = 1.57487$	$\nu_e = 57.27$	$n_{F'} - n_{C'} = 0.010039$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54556
$n_{1970.1}$	1970.1	1.55032
$n_{1529.6}$	1529.6	1.55543
$n_{1060.0}$	1060.0	1.56088
n_t	1014.0	1.56152
n_s	852.1	1.56421
n_r	706.5	1.56778
n_C	656.3	1.56949
$n_{C'}$	643.8	1.56997
$n_{632.8}$	632.8	1.57041
n_D	589.3	1.57241
n_d	587.6	1.57250
n_e	546.1	1.57487
n_F	486.1	1.57943
$n_{F'}$	480.0	1.58000
n_g	435.8	1.58488
n_h	404.7	1.58941
n_i	365.0	1.59716
$n_{334.1}$	334.1	1.60554
$n_{312.6}$	312.6	1.61326
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.12365662
B_2	0.309276848
B_3	0.881511957
C_1	0.00644742752
C_2	0.0222284402
C_3	107.297751

Constants of Dispersion dn/dT

D_0	$1.86 \cdot 10^{-7}$
D_1	$1.29 \cdot 10^{-8}$
D_2	$-1.87 \cdot 10^{-11}$
E_0	$5.25 \cdot 10^{-7}$
E_1	$5.46 \cdot 10^{-10}$
λ_{TK} [µm]	0.182

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.806	0.584
2325	0.877	0.721
1970	0.960	0.903
1530	0.994	0.986
1060	0.998	0.996
700	0.999	0.997
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.996	0.990
436	0.996	0.989
420	0.996	0.990
405	0.996	0.990
400	0.996	0.990
390	0.995	0.988
380	0.993	0.983
370	0.991	0.977
365	0.987	0.969
350	0.971	0.930
334	0.924	0.820
320	0.799	0.570
310	0.609	0.290
300	0.345	0.070
290	0.102	
280	0.014	
270		
260		
250		

Color Code

λ_{80}/λ_5	33/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2712
$P_{C,s}$	0.5301
$P_{d,C}$	0.3029
$P_{e,d}$	0.2384
$P_{g,F}$	0.5472
$P_{i,h}$	0.7788
$P'_{s,t}$	0.2687
$P'_{C',s}$	0.5730
$P'_{d,C'}$	0.2525
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4855
$P'_{i,h}$	0.7717

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

$\Delta P_{C,t}$	-0.0167
$\Delta P_{C,s}$	-0.0069
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	-0.0075

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.6
T_g [°C]	592
$T_{10}^{13.0}$ [°C]	592
$T_{10}^{7.6}$ [°C]	746
c_p [J/(g·K)]	0.687
λ [W/(m·K)]	0.795
ρ [g/cm^3]	3.19
E [10^3 N/mm^2]	73
µ	0.252
K [10^{-6} mm^2/N]	2.62
HK$_{0.1/20}$	530
HG	2
B	1
CR	2
FR	1
SR	3.3
AR	1.2
PR	2

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	1.7	2.4	3.0	-0.4	0.2	0.8
+20/ +40	1.8	2.5	3.2	0.4	1.2	1.8
+60/ +80	1.9	2.7	3.5	0.9	1.7	2.4

Data Sheet

SCHOTT

N-BAK2
540597.286

$n_d = 1.53996$	$\nu_d = 59.71$	$n_F - n_C = 0.009043$
$n_e = 1.54212$	$\nu_e = 59.44$	$n_{F'} - n_{C'} = 0.009120$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.51387
$n_{1970.1}$	1970.1	1.51871
$n_{1529.6}$	1529.6	1.52385
$n_{1060.0}$	1060.0	1.52919
n_t	1014.0	1.52980
n_s	852.1	1.53234
n_r	706.5	1.53564
n_C	656.3	1.53721
$n_{C'}$	643.8	1.53765
$n_{632.8}$	632.8	1.53806
n_D	589.3	1.53988
n_d	587.6	1.53996
n_e	546.1	1.54212
n_F	486.1	1.54625
$n_{F'}$	480.0	1.54677
n_g	435.8	1.55117
n_h	404.7	1.55525
n_i	365.0	1.56221
$n_{334.1}$	334.1	1.56971
$n_{312.6}$	312.6	1.57660
$n_{296.7}$	296.7	1.58287
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.01662154
B_2	0.319903051
B_3	0.937232995
C_1	0.00592383763
C_2	0.0203828415
C_3	113.118417

Constants of Dispersion dn/dT

D_0	$-1.45 \cdot 10^{-6}$
D_1	$1.10 \cdot 10^{-8}$
D_2	$4.89 \cdot 10^{-12}$
E_0	$5.16 \cdot 10^{-7}$
E_1	$3.05 \cdot 10^{-10}$
λ_{TK} [µm]	0.164

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.758	0.500
2325	0.831	0.630
1970	0.937	0.850
1530	0.994	0.984
1060	0.999	0.997
700	0.998	0.996
660	0.998	0.995
620	0.998	0.994
580	0.998	0.995
546	0.998	0.995
500	0.998	0.994
460	0.997	0.992
436	0.997	0.992
420	0.997	0.993
405	0.997	0.993
400	0.997	0.993
390	0.997	0.992
380	0.996	0.990
370	0.996	0.989
365	0.994	0.986
350	0.988	0.971
334	0.963	0.910
320	0.867	0.700
310	0.693	0.400
300	0.398	0.100
290	0.158	
280	0.040	
270		
260		
250		

Color Code

λ_{80}/λ_5	32/28
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2810
$P_{C,s}$	0.5382
$P_{d,C}$	0.3042
$P_{e,d}$	0.2385
$P_{g,F}$	0.5437
$P_{i,h}$	0.7695
$P'_{s,t}$	0.2787
$P'_{C',s}$	0.5817
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2364
$P'_{g,F'}$	0.4826
$P'_{i,h}$	0.7630

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

$\Delta P_{C,t}$	-0.0089
$\Delta P_{C,s}$	-0.0039
$\Delta P_{F,e}$	0.0004
$\Delta P_{g,F}$	0.0004
$\Delta P_{i,g}$	-0.0027

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.0
T_g [°C]	554
$T_{10}^{13.0}$ [°C]	550
$T_{10}^{7.6}$ [°C]	727
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.920
ρ [g/cm^3]	2.86
E [10^3 N/mm^2]	71
µ	0.233
K [10^{-6} mm^2/N]	2.60
HK$_{0.1/20}$	530
HG	2
B	1
CR	2
FR	0
SR	1
AR	1
PR	2.3

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	1.1	1.8	2.3	-0.9	-0.3	0.2
+20/ +40	1.0	1.7	2.3	-0.3	0.3	0.9
+60/ +80	1.1	1.8	2.4	0.1	0.8	1.4

Data Sheet

SCHOTT

N-BAK4
569560.305

$n_d = 1.56883$	$\nu_d = 55.98$	$n_F - n_C = 0.010162$
$n_e = 1.57125$	$\nu_e = 55.70$	$n_{F'} - n_{C'} = 0.010255$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54044
$n_{1970.1}$	1970.1	1.54561
$n_{1529.6}$	1529.6	1.55111
$n_{1060.0}$	1060.0	1.55688
n_t	1014.0	1.55755
n_s	852.1	1.56034
n_r	706.5	1.56400
n_C	656.3	1.56575
$n_{C'}$	643.8	1.56624
$n_{632.8}$	632.8	1.56670
n_D	589.3	1.56874
n_d	587.6	1.56883
n_e	546.1	1.57125
n_F	486.1	1.57591
$n_{F'}$	480.0	1.57649
n_g	435.8	1.58149
n_h	404.7	1.58614
n_i	365.0	1.59415
$n_{334.1}$	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	1.28834642
B_2	0.132817724
B_3	0.945395373
C_1	0.00779980626
C_2	0.0315631177
C_3	105.965875

Constants of Dispersion dn/dT

D_0	$3.06 \cdot 10^{-6}$
D_1	$1.44 \cdot 10^{-8}$
D_2	$-2.23 \cdot 10^{-11}$
E_0	$5.46 \cdot 10^{-7}$
E_1	$6.05 \cdot 10^{-10}$
λ_{TK} [µm]	0.189

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.782	0.540
2325	0.872	0.710
1970	0.959	0.900
1530	0.993	0.982
1060	0.998	0.995
700	0.999	0.997
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.996
500	0.998	0.994
460	0.996	0.989
436	0.995	0.988
420	0.995	0.987
405	0.993	0.983
400	0.992	0.980
390	0.987	0.967
380	0.976	0.940
370	0.954	0.890
365	0.933	0.840
350	0.787	0.550
334	0.345	0.070
320	0.012	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/33
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2749
$P_{C,s}$	0.5321
$P_{d,C}$	0.3029
$P_{e,d}$	0.2383
$P_{g,F}$	0.5487
$P_{i,h}$	0.7879
$P'_{s,t}$	0.2724
$P'_{C',s}$	0.5750
$P'_{d,C'}$	0.2524
$P'_{e,d}$	0.2361
$P'_{g,F'}$	0.4869
$P'_{i,h}$	0.7807

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

$\Delta P_{C,t}$	-0.0034
$\Delta P_{C,s}$	-0.0013
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0010
$\Delta P_{i,g}$	-0.0087

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.9
T_g [°C]	581
$T_{10}^{13.0}$ [°C]	569
$T_{10}^{7.6}$ [°C]	725
c_p [J/(g·K)]	0.680
λ [W/(m·K)]	0.880
ρ [g/cm^3]	3.05
E [10^3 N/mm^2]	77
μ	0.240
K [10^{-6} mm^2/N]	2.90
HK$_{0.1/20}$	550
HG	2
B	0
CR	1
FR	0
SR	1.2
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	3.0	3.7	4.4	0.9	1.5	2.2
+20/ +40	3.1	3.9	4.7	1.8	2.6	3.3
+60/ +80	3.3	4.2	5.0	2.2	3.1	3.9

Data Sheet

SCHOTT

N-SK2
607567.355

$n_d = 1.60738$	$\nu_d = 56.65$	$n_F - n_C = 0.010722$
$n_e = 1.60994$	$\nu_e = 56.37$	$n_{F'} - n_{C'} = 0.010821$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57881
$n_{1970.1}$	1970.1	1.58378
$n_{1529.6}$	1529.6	1.58914
$n_{1060.0}$	1060.0	1.59490
n_t	1014.0	1.59558
n_s	852.1	1.59847
n_r	706.5	1.60230
n_C	656.3	1.60414
$n_{C'}$	643.8	1.60465
$n_{632.8}$	632.8	1.60513
n_D	589.3	1.60729
n_d	587.6	1.60738
n_e	546.1	1.60994
n_F	486.1	1.61486
$n_{F'}$	480.0	1.61547
n_g	435.8	1.62073
n_h	404.7	1.62562
n_i	365.0	1.63398
$n_{334.1}$	334.1	1.64304
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.28189012
B_2	0.257738258
B_3	0.96818604
C_1	0.0072719164
C_2	0.0242823527
C_3	110.377773

Constants of Dispersion dn/dT

D_0	$3.80 \cdot 10^{-6}$
D_1	$1.41 \cdot 10^{-8}$
D_2	$2.28 \cdot 10^{-11}$
E_0	$6.44 \cdot 10^{-7}$
E_1	$8.03 \cdot 10^{-11}$
λ_{TK} [µm]	0.108

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.815	0.600
2325	0.896	0.760
1970	0.971	0.930
1530	0.995	0.988
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.994
620	0.998	0.994
580	0.998	0.995
546	0.998	0.995
500	0.996	0.990
460	0.993	0.983
436	0.993	0.982
420	0.994	0.984
405	0.994	0.985
400	0.994	0.984
390	0.992	0.979
380	0.988	0.970
370	0.976	0.940
365	0.967	0.920
350	0.905	0.780
334	0.752	0.490
320	0.504	0.180
310	0.276	0.040
300	0.102	
290	0.020	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2690
$P_{C,s}$	0.5285
$P_{d,C}$	0.3027
$P_{e,d}$	0.2384
$P_{g,F}$	0.5477
$P_{i,h}$	0.7802
$P'_{s,t}$	0.2666
$P'_{C',s}$	0.5713
$P'_{d,C'}$	0.2523
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4860
$P'_{i,h}$	0.7730

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

$\Delta P_{C,t}$	-0.0162
$\Delta P_{C,s}$	-0.0064
$\Delta P_{F,e}$	0.0003
$\Delta P_{g,F}$	-0.0008
$\Delta P_{i,g}$	-0.0130

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.1
T_g [°C]	659
$T_{10}^{13.0}$ [°C]	659
$T_{10}^{7.6}$ [°C]	823
c_p [J/(g·K)]	0.595
λ [W/(m·K)]	0.776
ρ [g/cm^3]	3.55
E [10^3 N/mm^2]	78
μ	0.263
K [10^{-6} mm^2/N]	2.31
HK$_{0.1/20}$	550
HG	2
B	0
CR	2
FR	0
SR	2.2
AR	1
PR	2.3

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	3.7	4.6	5.3	1.5	2.4	3.1
+20/ +40	3.6	4.5	5.3	2.3	3.1	3.9
+60/ +80	4.0	4.9	5.7	2.9	3.8	4.5

Data Sheet

SCHOTT

N-SK4
613586.354

$n_d = 1.61272$	$\nu_d = 58.63$	$n_F - n_C = 0.010450$
$n_e = 1.61521$	$\nu_e = 58.37$	$n_{F'} - n_{C'} = 0.010541$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58282
$n_{1970.1}$	1970.1	1.58835
$n_{1529.6}$	1529.6	1.59422
$n_{1060.0}$	1060.0	1.60032
n_t	1014.0	1.60102
n_s	852.1	1.60393
n_r	706.5	1.60774
n_C	656.3	1.60954
$n_{C'}$	643.8	1.61005
$n_{632.8}$	632.8	1.61052
n_D	589.3	1.61262
n_d	587.6	1.61272
n_e	546.1	1.61521
n_F	486.1	1.61999
$n_{F'}$	480.0	1.62059
n_g	435.8	1.62568
n_h	404.7	1.63042
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	1.32993741
B_2	0.228542996
B_3	0.988465211
C_1	0.00716874107
C_2	0.0246455892
C_3	100.886364

Constants of Dispersion dn/dT

D_0	$7.96 \cdot 10^{-7}$
D_1	$1.30 \cdot 10^{-8}$
D_2	$-1.31 \cdot 10^{-11}$
E_0	$4.36 \cdot 10^{-7}$
E_1	$6.01 \cdot 10^{-10}$
λ_{TK} [µm]	0.179

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.686	0.390
2325	0.826	0.620
1970	0.959	0.900
1530	0.991	0.977
1060	0.997	0.993
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.994	0.985
436	0.993	0.983
420	0.993	0.983
405	0.992	0.979
400	0.990	0.975
390	0.984	0.960
380	0.971	0.930
370	0.946	0.870
365	0.928	0.830
350	0.821	0.610
334	0.525	0.200
320	0.102	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/32
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2792
$P_{C,s}$	0.5366
$P_{d,C}$	0.3039
$P_{e,d}$	0.2384
$P_{g,F}$	0.5448
$P_{i,h}$	
$P'_{s,t}$	0.2768
$P'_{C',s}$	0.5799
$P'_{d,C'}$	0.2533
$P'_{e,d}$	0.2364
$P'_{g,F'}$	0.4835
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0073
$\Delta P_{C,s}$	-0.0030
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	-0.0004
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	658
$T_{10}^{13.0}$ [°C]	646
$T_{10}^{7.6}$ [°C]	769
c_p [J/(g·K)]	0.570
λ [W/(m·K)]	0.830
ρ [g/cm^3]	3.54
E [10^3 N/mm^2]	84
μ	0.261
K [10^{-6} mm^2/N]	1.92
HK$_{0.1/20}$	580
HG	3
B	1
CR	3
FR	1
SR	51.2
AR	2
PR	2

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	2.0	2.6	3.1	-0.1	0.4	0.9
+20/ +40	2.1	2.8	3.4	0.7	1.4	2.0
+60/ +80	2.3	3.0	3.7	1.2	1.9	2.6

Data Sheet

SCHOTT

N-SK5
589613.330

$n_d = 1.58913$	$\nu_d = 61.27$	$n_F - n_C = 0.009616$
$n_e = 1.59142$	$\nu_e = 61.02$	$n_{F'} - n_{C'} = 0.009692$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55966
$n_{1970.1}$	1970.1	1.56539
$n_{1529.6}$	1529.6	1.57140
$n_{1060.0}$	1060.0	1.57747
n_t	1014.0	1.57815
n_s	852.1	1.58094
n_r	706.5	1.58451
n_C	656.3	1.58619
$n_{C'}$	643.8	1.58666
$n_{632.8}$	632.8	1.58710
n_D	589.3	1.58904
n_d	587.6	1.58913
n_e	546.1	1.59142
n_F	486.1	1.59581
$n_{F'}$	480.0	1.59635
n_g	435.8	1.60100
n_h	404.7	1.60530
n_i	365.0	1.61260
$n_{334.1}$	334.1	1.62043
$n_{312.6}$	312.6	1.62759
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.991463823
B_2	0.495982121
B_3	0.987393925
C_1	0.00522730467
C_2	0.0172733646
C_3	98.3594579

Constants of Dispersion dn/dT

D_0	$3.50 \cdot 10^{-6}$
D_1	$1.22 \cdot 10^{-8}$
D_2	$6.38 \cdot 10^{-11}$
E_0	$2.46 \cdot 10^{-7}$
E_1	$-3.34 \cdot 10^{-11}$
λ_{TK} [µm]	0.278

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.680	0.380
2325	0.840	0.640
1970	0.963	0.910
1530	0.992	0.980
1060	0.999	0.997
700	0.998	0.995
660	0.998	0.994
620	0.997	0.993
580	0.998	0.995
546	0.998	0.996
500	0.998	0.994
460	0.996	0.989
436	0.995	0.987
420	0.994	0.986
405	0.993	0.983
400	0.992	0.981
390	0.988	0.971
380	0.984	0.960
370	0.976	0.940
365	0.971	0.930
350	0.920	0.820
334	0.800	0.580
320	0.590	0.270
310	0.400	0.100
300	0.210	0.020
290	0.090	
280	0.030	
270		
260		
250		

Color Code

λ_{80}/λ_5	34/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2904
$P_{C,s}$	0.5460
$P_{d,C}$	0.3055
$P_{e,d}$	0.2386
$P_{g,F}$	0.5400
$P_{i,h}$	0.7591
$P'_{s,t}$	0.2881
$P'_{C',s}$	0.5901
$P'_{d,C'}$	0.2547
$P'_{e,d}$	0.2367
$P'_{g,F'}$	0.4796
$P'_{i,h}$	0.7531

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

$\Delta P_{C,t}$	0.0008
$\Delta P_{C,s}$	0.0003
$\Delta P_{F,e}$	-0.0002
$\Delta P_{g,F}$	-0.0007
$\Delta P_{i,g}$	-0.0045

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.5
T_g [°C]	660
$T_{10}^{13.0}$ [°C]	657
$T_{10}^{7.6}$ [°C]	791
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.990
ρ [g/cm^3]	3.30
E [10^3 N/mm^2]	84
μ	0.256
K [10^{-6} mm^2/N]	2.16
HK$_{0.1/20}$	590
HG	3
B	1
CR	3
FR	1
SR	4.4
AR	2
PR	1.3

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	3.5	4.0	4.6	1.4	1.9	2.4
+20/ +40	3.2	3.7	4.3	1.9	2.3	2.9
+60/ +80	3.6	4.1	4.7	2.6	3.0	3.6

Data Sheet

SCHOTT

N-SK11
564608.308

$n_d = 1.56384$	$\nu_d = 60.80$	$n_F - n_C = 0.009274$
$n_e = 1.56605$	$\nu_e = 60.55$	$n_{F'} - n_{C'} = 0.009349$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.53598
$n_{1970.1}$	1970.1	1.54131
$n_{1529.6}$	1529.6	1.54693
$n_{1060.0}$	1060.0	1.55266
n_t	1014.0	1.55330
n_s	852.1	1.55597
n_r	706.5	1.55939
n_C	656.3	1.56101
$n_{C'}$	643.8	1.56146
$n_{632.8}$	632.8	1.56188
n_D	589.3	1.56376
n_d	587.6	1.56384
n_e	546.1	1.56605
n_F	486.1	1.57028
$n_{F'}$	480.0	1.57081
n_g	435.8	1.57530
n_h	404.7	1.57946
n_i	365.0	1.58653
$n_{334.1}$	334.1	1.59414
$n_{312.6}$	312.6	1.60110
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.17963631
B_2	0.229817295
B_3	0.935789652
C_1	0.00680282081
C_2	0.0219737205
C_3	101.513232

Constants of Dispersion dn/dT

D_0	$2.14 \cdot 10^{-6}$
D_1	$1.27 \cdot 10^{-8}$
D_2	$-7.21 \cdot 10^{-11}$
E_0	$3.51 \cdot 10^{-7}$
E_1	$5.41 \cdot 10^{-10}$
λ_{TK} [µm]	0.238

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.782	0.540
2325	0.882	0.730
1970	0.967	0.920
1530	0.994	0.984
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.999	0.997
500	0.998	0.994
460	0.996	0.990
436	0.995	0.988
420	0.994	0.985
405	0.992	0.980
400	0.990	0.975
390	0.988	0.970
380	0.985	0.963
370	0.980	0.950
365	0.976	0.940
350	0.950	0.880
334	0.872	0.710
320	0.700	0.410
310	0.480	0.160
300	0.212	0.020
290	0.058	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2874
$P_{C,s}$	0.5436
$P_{d,C}$	0.3051
$P_{e,d}$	0.2385
$P_{g,F}$	0.5411
$P_{i,h}$	0.7626
$P'_{s,t}$	0.2850
$P'_{C',s}$	0.5875
$P'_{d,C'}$	0.2544
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4805
$P'_{i,h}$	0.7564

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

$\Delta P_{C,t}$	-0.0024
$\Delta P_{C,s}$	-0.0011
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	-0.0004
$\Delta P_{i,g}$	-0.0037

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.6
T_g [°C]	610
$T_{10}^{13.0}$ [°C]	601
$T_{10}^{7.6}$ [°C]	760
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.08
E [10^3 N/mm^2]	79
µ	0.239
K [10^{-6} mm^2/N]	2.45
HK$_{0.1/20}$	570
HG	2
B	1
CR	2
FR	0
SR	2
AR	1
PR	2.3

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	2.4	2.8	3.4	0.3	0.7	1.2
+20/ +40	2.6	3.2	3.8	1.2	1.8	2.4
+60/ +80	2.5	3.2	3.9	1.5	2.1	2.8

Data Sheet

SCHOTT

N-SK14
603606.344

$n_d = 1.60311$	$\nu_d = 60.60$	$n_F - n_C = 0.009953$
$n_e = 1.60548$	$\nu_e = 60.34$	$n_{F'} - n_{C'} = 0.010034$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57336
$n_{1970.1}$	1970.1	1.57903
$n_{1529.6}$	1529.6	1.58502
$n_{1060.0}$	1060.0	1.59113
n_t	1014.0	1.59182
n_s	852.1	1.59467
n_r	706.5	1.59834
n_C	656.3	1.60008
$n_{C'}$	643.8	1.60056
$n_{632.8}$	632.8	1.60101
n_D	589.3	1.60302
n_d	587.6	1.60311
n_e	546.1	1.60548
n_F	486.1	1.61003
$n_{F'}$	480.0	1.61059
n_g	435.8	1.61542
n_h	404.7	1.61988
n_i	365.0	1.62748
$n_{334.1}$	334.1	1.63564
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.936155374
B_2	0.594052018
B_3	1.04374583
C_1	0.00461716525
C_2	0.016885927
C_3	103.736265

Constants of Dispersion dn/dT

D_0	$1.58 \cdot 10^{-6}$
D_1	$1.22 \cdot 10^{-8}$
D_2	$-8.04 \cdot 10^{-12}$
E_0	$4.46 \cdot 10^{-7}$
E_1	$5.22 \cdot 10^{-10}$
λ_{TK} [µm]	0.15

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.679	0.380
2325	0.831	0.630
1970	0.959	0.900
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.995
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.995	0.988
436	0.994	0.985
420	0.993	0.983
405	0.991	0.978
400	0.990	0.975
390	0.988	0.970
380	0.981	0.952
370	0.971	0.930
365	0.963	0.910
350	0.910	0.790
334	0.770	0.520
320	0.546	0.220
310	0.345	0.070
300	0.160	
290	0.040	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/29
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2864
$P_{C,s}$	0.5427
$P_{d,C}$	0.3049
$P_{e,d}$	0.2385
$P_{g,F}$	0.5415
$P_{i,h}$	0.7631
$P'_{s,t}$	0.2841
$P'_{C',s}$	0.5865
$P'_{d,C'}$	0.2542
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4808
$P'_{i,h}$	0.7569

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

$\Delta P_{C,t}$	-0.0033
$\Delta P_{C,s}$	-0.0015
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0044

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	649
$T_{10}^{13.0}$ [°C]	638
$T_{10}^{7.6}$ [°C]	773
c_p [J/(g·K)]	0.636
λ [W/(m·K)]	0.851
ρ [g/cm^3]	3.44
E [10^3 N/mm^2]	86
μ	0.261
K [10^{-6} mm^2/N]	2.00
HK$_{0.1/20}$	600
HG	3
B	1
CR	4
FR	2
SR	51.3
AR	2
PR	2.3

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	3.0	3.5	0.3	0.8	1.3
+20/ +40	2.4	3.1	3.7	1.1	1.7	2.3
+60/ +80	2.6	3.3	4.0	1.5	2.2	2.8

Data Sheet

SCHOTT

N-SK16
620603.358

$n_d = 1.62041$	$\nu_d = 60.32$	$n_F - n_C = 0.010285$
$n_e = 1.62286$	$\nu_e = 60.08$	$n_{F'} - n_{C'} = 0.010368$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58919
$n_{1970.1}$	1970.1	1.59523
$n_{1529.6}$	1529.6	1.60157
$n_{1060.0}$	1060.0	1.60799
n_t	1014.0	1.60871
n_s	852.1	1.61167
n_r	706.5	1.61548
n_C	656.3	1.61727
$n_{C'}$	643.8	1.61777
$n_{632.8}$	632.8	1.61824
n_D	589.3	1.62032
n_d	587.6	1.62041
n_e	546.1	1.62286
n_F	486.1	1.62756
$n_{F'}$	480.0	1.62814
n_g	435.8	1.63312
n_h	404.7	1.63773
n_i	365.0	1.64559
$n_{334.1}$	334.1	1.65403
$n_{312.6}$	312.6	1.66178
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.34317774
B_2	0.241144399
B_3	0.994317969
C_1	0.00704687339
C_2	0.0229005
C_3	92.7508526

Constants of Dispersion dn/dT

D_0	$-2.37 \cdot 10^{-8}$
D_1	$1.32 \cdot 10^{-8}$
D_2	$-1.29 \cdot 10^{-11}$
E_0	$4.09 \cdot 10^{-7}$
E_1	$5.17 \cdot 10^{-10}$
λ_{TK} [µm]	0.17

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.583	0.260
2325	0.782	0.540
1970	0.950	0.880
1530	0.989	0.973
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.994
620	0.997	0.993
580	0.998	0.994
546	0.998	0.994
500	0.996	0.991
460	0.994	0.984
436	0.992	0.981
420	0.992	0.979
405	0.990	0.974
400	0.988	0.970
390	0.982	0.956
380	0.971	0.930
370	0.954	0.890
365	0.941	0.860
350	0.867	0.700
334	0.693	0.400
320	0.414	0.110
310	0.209	0.020
300	0.063	
290	0.010	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2885
$P_{C,s}$	0.5443
$P_{d,C}$	0.3051
$P_{e,d}$	0.2385
$P_{g,F}$	0.5412
$P_{i,h}$	0.7633
$P'_{s,t}$	0.2861
$P'_{C',s}$	0.5882
$P'_{d,C'}$	0.2544
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4805
$P'_{i,h}$	0.7572

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

$\Delta P_{C,t}$	0.0016
$\Delta P_{C,s}$	0.0007
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0011
$\Delta P_{i,g}$	-0.0067

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	636
$T_{10}^{13.0}$ [°C]	633
$T_{10}^{7.6}$ [°C]	750
c_p [J/(g·K)]	0.578
λ [W/(m·K)]	0.818
ρ [g/cm^3]	3.58
E [10^3 N/mm^2]	89
µ	0.264
K [10^{-6} mm^2/N]	1.90
HK$_{0.1/20}$	600
HG	4
B	1
CR	4
FR	4
SR	53.3
AR	3.3
PR	3.2

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	1.6	2.2	2.6	-0.5	-0.1	0.4
+20/ +40	1.7	2.3	2.9	0.3	0.9	1.4
+60/ +80	1.9	2.6	3.2	0.8	1.5	2.1

Data Sheet

SCHOTT

P-SK57
587596.301

$n_d = 1.58700$	$\nu_d = 59.60$	$n_F - n_C = 0.009849$
$n_e = 1.58935$	$\nu_e = 59.36$	$n_{F'} - n_{C'} = 0.009928$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55688
$n_{1970.1}$	1970.1	1.56271
$n_{1529.6}$	1529.6	1.56885
$n_{1060.0}$	1060.0	1.57507
n_t	1014.0	1.57576
n_s	852.1	1.57862
n_r	706.5	1.58227
n_C	656.3	1.58399
$n_{C'}$	643.8	1.58447
$n_{632.8}$	632.8	1.58492
n_D	589.3	1.58691
n_d	587.6	1.58700
n_e	546.1	1.58935
n_F	486.1	1.59384
$n_{F'}$	480.0	1.59440
n_g	435.8	1.59917
n_h	404.7	1.60359
n_i	365.0	1.61112
$n_{334.1}$	334.1	1.61923
$n_{312.6}$	312.6	1.62669
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.31053414
B_2	0.169376189
B_3	1.10987714
C_1	0.00740877235
C_2	0.0254563489
C_3	107.751087

Constants of Dispersion dn/dT

D_0	$2.60 \cdot 10^{-6}$
D_1	$9.40 \cdot 10^{-9}$
D_2	$-2.30 \cdot 10^{-11}$
E_0	$4.90 \cdot 10^{-7}$
E_1	$5.96 \cdot 10^{-10}$
λ_{TK} [µm]	0.178

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.693	0.400
2325	0.831	0.630
1970	0.954	0.890
1530	0.991	0.978
1060	0.999	0.997
700	0.999	0.997
660	0.999	0.997
620	0.999	0.997
580	0.999	0.997
546	0.999	0.997
500	0.998	0.995
460	0.996	0.991
436	0.996	0.989
420	0.995	0.987
405	0.994	0.985
400	0.994	0.984
390	0.992	0.980
380	0.989	0.973
370	0.984	0.960
365	0.980	0.950
350	0.946	0.870
334	0.821	0.610
320	0.480	0.160
310	0.123	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/31
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2902
$P_{C,s}$	0.5454
$P_{d,C}$	0.3053
$P_{e,d}$	0.2385
$P_{g,F}$	0.5412
$P_{i,h}$	0.7644
$P'_{s,t}$	0.2878
$P'_{C',s}$	0.5894
$P'_{d,C'}$	0.2545
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4806
$P'_{i,h}$	0.7583

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

$\Delta P_{C,t}$	0.0079
$\Delta P_{C,s}$	0.0036
$\Delta P_{F,e}$	-0.0008
$\Delta P_{g,F}$	-0.0024
$\Delta P_{i,g}$	-0.0115

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.9
T_g [°C]	493
$T_{10}^{13.0}$ [°C]	494
$T_{10}^{7.6}$ [°C]	593
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	1.010
AT [°C]	522
ρ [g/cm^3]	3.01
E [10^3 N/mm^2]	93
µ	0.249
K [10^{-6} mm^2/N]	2.17
$HK_{0.1/20}$	535
HG	3
HG-J	124
B	1
CR	4
FR	3
SR	52.3
AR	2
PR	3
SR-J	4
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	3.0	3.7	4.2	0.9	1.5	2.0
+20/ +40	2.9	3.6	4.3	1.5	2.2	2.9
+60/ +80	2.9	3.7	4.4	1.8	2.6	3.3

Data Sheet

SCHOTT

P-SK58A
589612.297

$n_d = 1.58913$	$\nu_d = 61.15$	$n_F - n_C = 0.009634$
$n_e = 1.59143$	$\nu_e = 60.93$	$n_{F'} - n_{C'} = 0.009707$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55820
$n_{1970.1}$	1970.1	1.56439
$n_{1529.6}$	1529.6	1.57086
$n_{1060.0}$	1060.0	1.57728
n_t	1014.0	1.57799
n_s	852.1	1.58086
n_r	706.5	1.58449
n_C	656.3	1.58618
$n_{C'}$	643.8	1.58665
$n_{632.8}$	632.8	1.58709
n_D	589.3	1.58904
n_d	587.6	1.58913
n_e	546.1	1.59143
n_F	486.1	1.59581
$n_{F'}$	480.0	1.59636
n_g	435.8	1.60100
n_h	404.7	1.60530
n_i	365.0	1.61260
$n_{334.1}$	334.1	1.62045
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.3167841
B_2	0.171154756
B_3	1.12501473
C_1	0.00720717498
C_2	0.0245659595
C_3	102.739728

Constants of Dispersion dn/dT

D_0	$103.00 \cdot 10^{0}$
D_1	$3.16 \cdot 10^{-6}$
D_2	$1.23 \cdot 10^{-8}$
E_0	$-1.08 \cdot 10^{-11}$
E_1	$4.41 \cdot 10^{-7}$
λ_{TK} [µm]	3.2e-10

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.546	0.220
2325	0.746	0.480
1970	0.924	0.820
1530	0.984	0.961
1060	0.996	0.991
700	0.995	0.988
660	0.995	0.988
620	0.996	0.989
580	0.997	0.992
546	0.998	0.994
500	0.997	0.993
460	0.996	0.989
436	0.995	0.987
420	0.994	0.986
405	0.994	0.985
400	0.994	0.984
390	0.991	0.977
380	0.986	0.965
370	0.980	0.950
365	0.971	0.930
350	0.924	0.820
334	0.752	0.490
320	0.364	0.080
310	0.067	
300	0.002	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/31
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2982
$P_{C,s}$	0.5519
$P_{d,C}$	0.3062
$P_{e,d}$	0.2386
$P_{g,F}$	0.5386
$P_{i,h}$	0.7578
$P'_{s,t}$	0.2959
$P'_{C',s}$	0.5963
$P'_{d,C'}$	0.2554
$P'_{e,d}$	0.2368
$P'_{g,F'}$	0.4784
$P'_{i,h}$	0.7521

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

$\Delta P_{C,t}$	0.0150
$\Delta P_{C,s}$	0.0065
$\Delta P_{F,e}$	-0.0010
$\Delta P_{g,F}$	-0.0023
$\Delta P_{i,g}$	-0.0080

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	510
$T_{10}^{13.0}$ [°C]	510
$T_{10}^{7.6}$ [°C]	608
c_p [J/(g·K)]	0.770
λ [W/(m·K)]	1.020
AT [°C]	551
ρ [g/cm^3]	2.97
E [10^3 N/mm^2]	97
µ	0.245
K [10^{-6} mm^2/N]	2.12
HK$_{0.1/20}$	662
HG	
HG-J	102
B	1
CR	
FR	
SR	
AR	
PR	
SR-J	4
WR-J	2

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	0.2	3.2	3.8	4.4	1.0	1.6
+20/ +40	2.2	3.2	3.8	4.4	1.8	2.4
+60/ +80	3.0	3.3	4.0	4.7	2.2	2.9

Data Sheet

SCHOTT

P-SK60
610579.308

$n_d = 1.61035$	$\nu_d = 57.90$	$n_F - n_C = 0.010541$
$n_e = 1.61286$	$\nu_e = 57.66$	$n_{F'} - n_{C'} = 0.010628$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57831
$n_{1970.1}$	1970.1	1.58450
$n_{1529.6}$	1529.6	1.59102
$n_{1060.0}$	1060.0	1.59762
n_t	1014.0	1.59836
n_s	852.1	1.60140
n_r	706.5	1.60530
n_C	656.3	1.60714
$n_{C'}$	643.8	1.60765
$n_{632.8}$	632.8	1.60813
n_D	589.3	1.61026
n_d	587.6	1.61035
n_e	546.1	1.61286
n_F	486.1	1.61768
$n_{F'}$	480.0	1.61828
n_g	435.8	1.62340
n_h	404.7	1.62815
n_i	365.0	1.63627
$n_{334.1}$	334.1	1.64506
$n_{312.6}$	312.6	1.65317
$n_{296.7}$	296.7	1.66061
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.40790442
B_2	0.143381417
B_3	1.16513947
C_1	0.00784382378
C_2	0.0287769365
C_3	105.373397

Constants of Dispersion dn/dT

D_0	$105.00 \cdot 10^{0}$
D_1	$2.41 \cdot 10^{-6}$
D_2	$9.52 \cdot 10^{-9}$
E_0	$-8.08 \cdot 10^{-12}$
E_1	$4.72 \cdot 10^{-7}$
λ_{TK} [µm]	6.22e-10

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.693	0.400
2325	0.891	0.630
1970	0.959	0.900
1530	0.993	0.983
1060	0.999	0.998
700	0.999	0.997
660	0.998	0.996
620	0.998	0.996
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.995
436	0.998	0.994
420	0.998	0.994
405	0.997	0.993
400	0.997	0.992
390	0.995	0.988
380	0.993	0.983
370	0.990	0.974
365	0.987	0.967
350	0.967	0.920
334	0.905	0.780
320	0.746	0.480
310	0.480	0.160
300	0.150	0.005
290	0.010	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/29
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2887
$P_{C,s}$	0.5438
$P_{d,C}$	0.3049
$P_{e,d}$	0.2384
$P_{g,F}$	0.5427
$P_{i,h}$	0.7702
$P'_{s,t}$	0.2863
$P'_{C',s}$	0.5876
$P'_{d,C'}$	0.2542
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4819
$P'_{i,h}$	0.7639

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

$\Delta P_{C,t}$	0.0128
$\Delta P_{C,s}$	0.0059
$\Delta P_{F,e}$	-0.0012
$\Delta P_{g,F}$	-0.0037
$\Delta P_{i,g}$	-0.0177

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.9
T_g [°C]	507
$T_{10}^{13.0}$ [°C]	509
$T_{10}^{7.6}$ [°C]	606
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	1.130
AT [°C]	547
ρ [g/cm^3]	3.08
E [10^3 N/mm^2]	99
µ	0.253
K [10^{-6} mm^2/N]	2.04
HK$_{0.1/20}$	601
HG	
HG-J	86
B	1
CR	4
FR	5
SR	53.4
AR	2.3
PR	3.3
SR-J	4
WR-J	3

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	0.2	3.0	3.7	4.3	0.9	1.5
+20/ +40	2.1	2.9	3.6	4.3	1.5	2.3
+60/ +80	2.9	2.9	3.8	4.5	1.8	2.7

Data Sheet

SCHOTT

N-KF9
523515.250

$n_d = 1.52346$	$\nu_d = 51.54$	$n_F - n_C = 0.010156$
$n_e = 1.52588$	$\nu_e = 51.26$	$n_{F'} - n_{C'} = 0.010258$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.49608
$n_{1970.1}$	1970.1	1.50095
$n_{1529.6}$	1529.6	1.50616
$n_{1060.0}$	1060.0	1.51170
n_t	1014.0	1.51234
n_s	852.1	1.51507
n_r	706.5	1.51867
n_C	656.3	1.52040
$n_{C'}$	643.8	1.52089
$n_{632.8}$	632.8	1.52134
n_D	589.3	1.52337
n_d	587.6	1.52346
n_e	546.1	1.52588
n_F	486.1	1.53056
$n_{F'}$	480.0	1.53114
n_g	435.8	1.53620
n_h	404.7	1.54096
n_i	365.0	1.54925
$n_{334.1}$	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	1.19286778
B_2	0.0893346571
B_3	0.920819805
C_1	0.00839154696
C_2	0.0404010786
C_3	112.572446

Constants of Dispersion dn/dT

D_0	$-1.66 \cdot 10^{-6}$
D_1	$8.44 \cdot 10^{-9}$
D_2	$-1.01 \cdot 10^{-11}$
E_0	$6.10 \cdot 10^{-7}$
E_1	$6.96 \cdot 10^{-10}$
λ_{TK} [µm]	0.217

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.618	0.300
2325	0.713	0.430
1970	0.887	0.740
1530	0.992	0.981
1060	0.998	0.995
700	0.999	0.997
660	0.998	0.995
620	0.998	0.994
580	0.998	0.996
546	0.998	0.996
500	0.998	0.994
460	0.996	0.990
436	0.995	0.988
420	0.994	0.985
405	0.990	0.975
400	0.986	0.965
390	0.976	0.940
380	0.950	0.880
370	0.901	0.770
365	0.857	0.680
350	0.536	0.210
334	0.026	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2683
$P_{C,s}$	0.5249
$P_{d,C}$	0.3012
$P_{e,d}$	0.2380
$P_{g,F}$	0.5558
$P_{i,h}$	0.8161
$P'_{s,t}$	0.2657
$P'_{C',s}$	0.5669
$P'_{d,C'}$	0.2509
$P'_{e,d}$	0.2356
$P'_{g,F'}$	0.4930
$P'_{i,h}$	0.8080

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

$\Delta P_{C,t}$	0.0038
$\Delta P_{C,s}$	0.0018
$\Delta P_{F,e}$	-0.0004
$\Delta P_{g,F}$	-0.0014
$\Delta P_{i,g}$	-0.0075

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	11.0
T_g [°C]	476
$T_{10}^{13.0}$ [°C]	476
$T_{10}^{7.6}$ [°C]	640
c_p [J/(g·K)]	0.860
λ [W/(m·K)]	1.040
ρ [g/cm^3]	2.50
E [10^3 N/mm^2]	66
μ	0.225
K [10^{-6} mm^2/N]	2.74
HK$_{0.1/20}$	480
HG	1
B	1
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	1.1	1.9	2.6	-0.9	-0.2	0.5
+20/ +40	0.9	1.8	2.6	-0.4	0.4	1.3
+60/ +80	0.9	1.8	2.8	-0.1	0.8	1.7

Data Sheet

SCHOTT

N-BALF4
580539.311

$n_d = 1.57956$	$\nu_d = 53.87$	$n_F - n_C = 0.010759$
$n_e = 1.58212$	$\nu_e = 53.59$	$n_{F'} - n_{C'} = 0.010863$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.55068
$n_{1970.1}$	1970.1	1.55577
$n_{1529.6}$	1529.6	1.56124
$n_{1060.0}$	1060.0	1.56707
n_t	1014.0	1.56776
n_s	852.1	1.57065
n_r	706.5	1.57447
n_C	656.3	1.57631
$n_{C'}$	643.8	1.57683
$n_{632.8}$	632.8	1.57731
n_D	589.3	1.57946
n_d	587.6	1.57956
n_e	546.1	1.58212
n_F	486.1	1.58707
$n_{F'}$	480.0	1.58769
n_g	435.8	1.59301
n_h	404.7	1.59799
n_i	365.0	1.60658
$n_{334.1}$	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	1.31004128
B_2	0.142038259
B_3	0.964929351
C_1	0.0079659645
C_2	0.0330672072
C_3	109.19732

Constants of Dispersion dn/dT

D_0	$5.33 \cdot 10^{-6}$
D_1	$1.47 \cdot 10^{-8}$
D_2	$-1.58 \cdot 10^{-11}$
E_0	$5.75 \cdot 10^{-7}$
E_1	$6.58 \cdot 10^{-10}$
λ_{TK} [µm]	0.195

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.804	0.580
2325	0.887	0.740
1970	0.967	0.920
1530	0.994	0.984
1060	0.997	0.993
700	0.999	0.997
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.995
500	0.997	0.993
460	0.994	0.986
436	0.993	0.983
420	0.992	0.981
405	0.988	0.970
400	0.985	0.964
390	0.976	0.940
380	0.959	0.900
370	0.924	0.820
365	0.891	0.750
350	0.679	0.380
334	0.158	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2687
$P_{C,s}$	0.5265
$P_{d,C}$	0.3019
$P_{e,d}$	0.2382
$P_{g,F}$	0.5520
$P_{i,h}$	0.7986
$P'_{s,t}$	0.2661
$P'_{C',s}$	0.5689
$P'_{d,C'}$	0.2515
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4897
$P'_{i,h}$	0.7909

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

$\Delta P_{C,t}$	-0.0053
$\Delta P_{C,s}$	-0.0019
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0012
$\Delta P_{i,g}$	-0.0114

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	578
$T_{10}^{13.0}$ [°C]	584
$T_{10}^{7.6}$ [°C]	661
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.850
ρ [g/cm^3]	3.11
E [10^3 N/mm^2]	77
µ	0.245
K [10^{-6} mm^2/N]	3.01
HK$_{0.1/20}$	540
HG	2
B	1
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	4.1	4.9	5.6	2.0	2.7	3.4
+20/ +40	4.2	5.1	6.0	2.9	3.7	4.6
+60/ +80	4.4	5.4	6.4	3.4	4.3	5.3

Data Sheet

SCHOTT

N-BALF5
547536.261

$n_d = 1.54739$	$\nu_d = 53.63$	$n_F - n_C = 0.010207$
$n_e = 1.54982$	$\nu_e = 53.36$	$n_{F'} - n_{C'} = 0.010303$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	
$n_{1970.1}$	1970.1	
$n_{1529.6}$	1529.6	
$n_{1060.0}$	1060.0	1.53529
n_t	1014.0	1.53598
n_s	852.1	1.53885
n_r	706.5	1.54255
n_C	656.3	1.54430
$n_{C'}$	643.8	1.54479
$n_{632.8}$	632.8	1.54525
n_D	589.3	1.54730
n_d	587.6	1.54739
n_e	546.1	1.54982
n_F	486.1	1.55451
$n_{F'}$	480.0	1.55510
n_g	435.8	1.56016
n_h	404.7	1.56491
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	1.28385965
B_2	0.0719300942
B_3	1.05048927
C_1	0.00825815975
C_2	0.0441920027
C_3	107.097324

Constants of Dispersion dn/dT

D_0	$1.14 \cdot 10^{-6}$
D_1	$1.29 \cdot 10^{-8}$
D_2	$-1.46 \cdot 10^{-11}$
E_0	$5.02 \cdot 10^{-7}$
E_1	$5.87 \cdot 10^{-10}$
λ_{TK} [µm]	0.219

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.618	0.300
2325	0.758	0.500
1970	0.919	0.810
1530	0.989	0.973
1060	0.996	0.991
700	0.998	0.995
660	0.997	0.993
620	0.997	0.993
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.995	0.988
436	0.994	0.984
420	0.991	0.978
405	0.986	0.965
400	0.983	0.957
390	0.967	0.920
380	0.937	0.850
370	0.872	0.710
365	0.815	0.600
350	0.439	0.128
334	0.006	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2810
$P_{C,s}$	0.5345
$P_{d,C}$	0.3025
$P_{e,d}$	0.2380
$P_{g,F}$	0.5532
$P_{i,h}$	
$P'_{s,t}$	0.2783
$P'_{C',s}$	0.5771
$P'_{d,C'}$	0.2520
$P'_{e,d}$	0.2357
$P'_{g,F'}$	0.4909
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0161
$\Delta P_{C,s}$	0.0066
$\Delta P_{F,e}$	-0.0007
$\Delta P_{g,F}$	-0.0004
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	558
$T_{10}^{13.0}$ [°C]	559
$T_{10}^{7.6}$ [°C]	711
c_p [J/(g·K)]	0.810
λ [W/(m·K)]	1.050
ρ [g/cm^3]	2.61
E [10^3 N/mm^2]	81
µ	0.214
K [10^{-6} mm^2/N]	2.76
HK$_{0.1/20}$	600
HG	2
B	1
CR	1
FR	0
SR	1
AR	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	2.1	2.8	3.5	0.1	0.7	1.3
+20/ +40	2.1	2.9	3.7	0.8	1.6	2.3
+60/ +80	2.3	3.1	3.9	1.3	2.1	2.9

Data Sheet

SCHOTT

N-SSK2
622533.353

$n_d = 1.62229$	$\nu_d = 53.27$	$n_F - n_C = 0.011681$
$n_e = 1.62508$	$\nu_e = 52.99$	$n_{F'} - n_{C'} = 0.011795$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.59149
$n_{1970.1}$	1970.1	1.59685
$n_{1529.6}$	1529.6	1.60260
$n_{1060.0}$	1060.0	1.60880
n_t	1014.0	1.60953
n_s	852.1	1.61264
n_r	706.5	1.61678
n_C	656.3	1.61877
$n_{C'}$	643.8	1.61933
$n_{632.8}$	632.8	1.61985
n_D	589.3	1.62219
n_d	587.6	1.62229
n_e	546.1	1.62508
n_F	486.1	1.63045
$n_{F'}$	480.0	1.63112
n_g	435.8	1.63691
n_h	404.7	1.64232
n_i	365.0	1.65166
$n_{334.1}$	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	1.4306027
B_2	0.153150554
B_3	1.01390904
C_1	0.00823982975
C_2	0.0333736841
C_3	106.870822

Constants of Dispersion dn/dT

D_0	$5.21 \cdot 10^{-6}$
D_1	$1.34 \cdot 10^{-8}$
D_2	$-1.01 \cdot 10^{-11}$
E_0	$5.21 \cdot 10^{-7}$
E_1	$5.87 \cdot 10^{-10}$
λ_{TK} [µm]	0.199

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.758	0.500
2325	0.877	0.720
1970	0.971	0.930
1530	0.992	0.981
1060	0.997	0.992
700	0.998	0.996
660	0.998	0.994
620	0.997	0.993
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.994	0.985
436	0.992	0.980
420	0.990	0.975
405	0.985	0.963
400	0.981	0.954
390	0.967	0.920
380	0.941	0.860
370	0.891	0.750
365	0.852	0.670
350	0.574	0.250
334	0.084	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2661
$P_{C,s}$	0.5246
$P_{d,C}$	0.3016
$P_{e,d}$	0.2381
$P_{g,F}$	0.5526
$P_{i,h}$	0.7997
$P'_{s,t}$	0.2636
$P'_{C',s}$	0.5669
$P'_{d,C'}$	0.2513
$P'_{e,d}$	0.2358
$P'_{g,F'}$	0.4902
$P'_{i,h}$	0.7920

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

$\Delta P_{C,t}$	-0.0069
$\Delta P_{C,s}$	-0.0025
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0016
$\Delta P_{i,g}$	-0.0146

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	653
$T_{10}^{13.0}$ [°C]	655
$T_{10}^{7.6}$ [°C]	801
c_p [J/(g·K)]	0.580
λ [W/(m·K)]	0.810
ρ [g/cm^3]	3.53
E [10^3 N/mm^2]	82
µ	0.261
K [10^{-6} mm^2/N]	2.51
HK$_{0.1/20}$	570
HG	3
B	1
CR	1
FR	0
SR	1.2
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	4.2	5.0	5.8	2.1	2.8	3.5
+20/ +40	4.3	5.2	6.1	2.9	3.8	4.6
+60/ +80	4.5	5.5	6.4	3.5	4.4	5.3

Data Sheet

SCHOTT

N-SSK5
658509.371

$n_d = 1.65844$	$\nu_d = 50.88$	$n_F - n_C = 0.012940$
$n_e = 1.66152$	$\nu_e = 50.59$	$n_{F'} - n_{C'} = 0.013075$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.62581
$n_{1970.1}$	1970.1	1.63128
$n_{1529.6}$	1529.6	1.63720
$n_{1060.0}$	1060.0	1.64371
n_t	1014.0	1.64450
n_s	852.1	1.64785
n_r	706.5	1.65237
n_C	656.3	1.65455
$n_{C'}$	643.8	1.65517
$n_{632.8}$	632.8	1.65574
n_D	589.3	1.65833
n_d	587.6	1.65844
n_e	546.1	1.66152
n_F	486.1	1.66749
$n_{F'}$	480.0	1.66824
n_g	435.8	1.67471
n_h	404.7	1.68079
n_i	365.0	1.69139
$n_{334.1}$	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	1.59222659
B_2	0.103520774
B_3	1.05174016
C_1	0.00920284626
C_2	0.0423530072
C_3	106.927374

Constants of Dispersion dn/dT

D_0	$7.29 \cdot 10^{-7}$
D_1	$1.17 \cdot 10^{-8}$
D_2	$-1.50 \cdot 10^{-11}$
E_0	$6.08 \cdot 10^{-7}$
E_1	$7.66 \cdot 10^{-10}$
λ_{TK} [µm]	0.189

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.727	0.450
2325	0.847	0.660
1970	0.963	0.910
1530	0.992	0.980
1060	0.996	0.990
700	0.997	0.993
660	0.997	0.992
620	0.997	0.992
580	0.997	0.993
546	0.996	0.990
500	0.993	0.982
460	0.987	0.968
436	0.982	0.956
420	0.976	0.940
405	0.963	0.910
400	0.959	0.900
390	0.941	0.860
380	0.896	0.760
370	0.804	0.580
365	0.727	0.450
350	0.336	0.060
334	0.017	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2592
$P_{C,s}$	0.5181
$P_{d,C}$	0.3003
$P_{e,d}$	0.2380
$P_{g,F}$	0.5575
$P_{i,h}$	0.8192
$P'_{s,t}$	0.2566
$P'_{C',s}$	0.5598
$P'_{d,C'}$	0.2502
$P'_{e,d}$	0.2355
$P'_{g,F'}$	0.4944
$P'_{i,h}$	0.8108

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

$\Delta P_{C,t}$	-0.0090
$\Delta P_{C,s}$	-0.0034
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	-0.0007
$\Delta P_{i,g}$	-0.0081

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.0
T_g [°C]	645
$T_{10}^{13.0}$ [°C]	637
$T_{10}^{7.6}$ [°C]	751
c_p [J/(g·K)]	0.574
λ [W/(m·K)]	
ρ [g/cm^3]	3.71
E [10^3 N/mm^2]	88
µ	0.278
K [10^{-6} mm^2/N]	1.90
HK$_{0.1/20}$	590
HG	5
B	1
CR	2
FR	3
SR	52.2
AR	2.2
PR	3.2

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	2.2	3.0	3.9	0.0	0.8	1.6
+20/ +40	2.2	3.2	4.2	0.8	1.8	2.7
+60/ +80	2.4	3.5	4.5	1.2	2.3	3.4

Data Sheet

SCHOTT

N-SSK8
618498.327

$n_d = 1.61773$	$\nu_d = 49.83$	$n_F - n_C = 0.012397$
$n_e = 1.62068$	$\nu_e = 49.54$	$n_{F'} - n_{C'} = 0.012529$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58594
$n_{1970.1}$	1970.1	1.59137
$n_{1529.6}$	1529.6	1.59723
$n_{1060.0}$	1060.0	1.60360
n_t	1014.0	1.60436
n_s	852.1	1.60759
n_r	706.5	1.61192
n_C	656.3	1.61401
$n_{C'}$	643.8	1.61460
$n_{632.8}$	632.8	1.61515
n_D	589.3	1.61762
n_d	587.6	1.61773
n_e	546.1	1.62068
n_F	486.1	1.62641
$n_{F'}$	480.0	1.62713
n_g	435.8	1.63335
n_h	404.7	1.63923
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	1.44857867
B_2	0.117965926
B_3	1.06937528
C_1	0.00869310149
C_2	0.0421566593
C_3	111.300666

Constants of Dispersion dn/dT

D_0	$5.34 \cdot 10^{-7}$
D_1	$1.27 \cdot 10^{-8}$
D_2	$-1.75 \cdot 10^{-11}$
E_0	$5.40 \cdot 10^{-7}$
E_1	$7.05 \cdot 10^{-10}$
λ_{TK} [µm]	0.224

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.733	0.460
2325	0.847	0.660
1970	0.959	0.900
1530	0.992	0.980
1060	0.997	0.993
700	0.998	0.994
660	0.996	0.991
620	0.996	0.990
580	0.997	0.992
546	0.997	0.992
500	0.994	0.984
460	0.987	0.969
436	0.982	0.955
420	0.975	0.938
405	0.959	0.900
400	0.950	0.880
390	0.919	0.810
380	0.847	0.660
370	0.727	0.450
365	0.626	0.310
350	0.194	0.010
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2606
$P_{C,s}$	0.5179
$P_{d,C}$	0.2999
$P_{e,d}$	0.2378
$P_{g,F}$	0.5602
$P_{i,h}$	
$P'_{s,t}$	0.2579
$P'_{C',s}$	0.5594
$P'_{d,C'}$	0.2498
$P'_{e,d}$	0.2353
$P'_{g,F'}$	0.4967
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0028
$\Delta P_{C,s}$	-0.0012
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.2
T_g [°C]	616
$T_{10}^{13.0}$ [°C]	604
$T_{10}^{7.6}$ [°C]	742
c_p [J/(g·K)]	0.640
λ [W/(m·K)]	0.840
ρ [g/cm^3]	3.27
E [10^3 N/mm^2]	84
µ	0.251
K [10^{-6} mm^2/N]	2.36
HK$_{0.1/20}$	570
HG	3
B	1
CR	1
FR	0
SR	1
AR	1.3
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	1.9	2.7	3.5	-0.2	0.5	1.3
+20/ +40	2.0	2.9	3.9	0.6	1.5	2.4
+60/ +80	2.2	3.2	4.2	1.1	2.1	3.1

Data Sheet

SCHOTT

N-LAK7
652585.384

$n_d = 1.65160$	$\nu_d = 58.52$	$n_F - n_C = 0.011135$
$n_e = 1.65425$	$\nu_e = 58.26$	$n_{F'} - n_{C'} = 0.011229$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61875
$n_{1970.1}$	1970.1	1.62499
$n_{1529.6}$	1529.6	1.63156
$n_{1060.0}$	1060.0	1.63828
n_t	1014.0	1.63904
n_s	852.1	1.64220
n_r	706.5	1.64628
n_C	656.3	1.64821
$n_{C'}$	643.8	1.64875
$n_{632.8}$	632.8	1.64925
n_D	589.3	1.65150
n_d	587.6	1.65160
n_e	546.1	1.65425
n_F	486.1	1.65934
$n_{F'}$	480.0	1.65998
n_g	435.8	1.66539
n_h	404.7	1.67042
n_i	365.0	1.67897
$n_{334.1}$	334.1	1.68820
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.23679889
B_2	0.445051837
B_3	1.01745888
C_1	0.00610105538
C_2	0.0201388334
C_3	90.638038

Constants of Dispersion dn/dT

D_0	$-3.40 \cdot 10^{-6}$
D_1	$1.17 \cdot 10^{-8}$
D_2	$2.38 \cdot 10^{-11}$
E_0	$4.96 \cdot 10^{-7}$
E_1	$4.44 \cdot 10^{-10}$
λ_{TK} [µm]	0.107

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.546	0.220
2325	0.764	0.510
1970	0.959	0.900
1530	0.992	0.979
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.995
620	0.998	0.994
580	0.998	0.995
546	0.998	0.996
500	0.997	0.993
460	0.994	0.985
436	0.991	0.977
420	0.988	0.970
405	0.981	0.952
400	0.977	0.943
390	0.965	0.915
380	0.946	0.870
370	0.910	0.790
365	0.882	0.730
350	0.739	0.470
334	0.509	0.185
320	0.276	0.040
310	0.137	0.010
300	0.044	
290	0.010	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2835
$P_{C,s}$	0.5400
$P_{d,C}$	0.3044
$P_{e,d}$	0.2385
$P_{g,F}$	0.5433
$P_{i,h}$	0.7687
$P'_{s,t}$	0.2812
$P'_{C',s}$	0.5836
$P'_{d,C'}$	0.2538
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4823
$P'_{i,h}$	0.7622

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

$\Delta P_{C,t}$	0.0010
$\Delta P_{C,s}$	0.0007
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0021
$\Delta P_{i,g}$	-0.0140

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.2
T_g [°C]	618
$T_{10}^{13.0}$ [°C]	626
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.84
E [10^3 N/mm^2]	90
µ	0.277
K [10^{-6} mm^2/N]	1.65
HK$_{0.1/20}$	600
HG	5
B	0
CR	3
FR	2
SR	53.3
AR	3.3
PR	4.3

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	0.2	0.8	1.3	-2.0	-1.5	-1.0
+20/ +40	0.0	0.7	1.3	-1.4	-0.7	-0.2
+60/ +80	0.3	1.0	1.7	-0.8	-0.1	0.5

Data Sheet

SCHOTT

N-LAK8
713538.375

n_d = 1.71300	ν_d = 53.83	$n_F - n_C$ = 0.013245
n_e = 1.71616	ν_e = 53.61	$n_{F'} - n_{C'}$ = 0.013359

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67294
$n_{1970.1}$	1970.1	1.68075
$n_{1529.6}$	1529.6	1.68890
$n_{1060.0}$	1060.0	1.69710
n_t	1014.0	1.69802
n_s	852.1	1.70181
n_r	706.5	1.70668
n_C	656.3	1.70897
$n_{C'}$	643.8	1.70962
$n_{632.8}$	632.8	1.71022
n_D	589.3	1.71289
n_d	587.6	1.71300
n_e	546.1	1.71616
n_F	486.1	1.72222
$n_{F'}$	480.0	1.72297
n_g	435.8	1.72944
n_h	404.7	1.73545
n_i	365.0	1.74573
$n_{334.1}$	334.1	1.75687
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.33183167
B_2	0.546623206
B_3	1.19084015
C_1	0.00620023871
C_2	0.0216465439
C_3	82.5827736

Constants of Dispersion dn/dT

D_0	$4.10 \cdot 10^{-6}$
D_1	$1.25 \cdot 10^{-8}$
D_2	$-1.60 \cdot 10^{-11}$
E_0	$4.30 \cdot 10^{-7}$
E_1	$6.29 \cdot 10^{-10}$
λ_{TK} [µm]	0.213

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.707	0.420
1970	0.950	0.880
1530	0.992	0.979
1060	0.998	0.994
700	0.998	0.996
660	0.998	0.995
620	0.998	0.994
580	0.998	0.994
546	0.998	0.995
500	0.998	0.994
460	0.995	0.987
436	0.992	0.979
420	0.988	0.970
405	0.981	0.952
400	0.977	0.943
390	0.965	0.915
380	0.946	0.870
370	0.905	0.780
365	0.877	0.720
350	0.739	0.470
334	0.509	0.185
320	0.276	0.040
310	0.137	0.010
300	0.044	
290	0.010	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2861
$P_{C,s}$	0.5408
$P_{d,C}$	0.3042
$P_{e,d}$	0.2383
$P_{g,F}$	0.5450
$P_{i,h}$	0.7764
$P'_{s,t}$	0.2836
$P'_{C',s}$	0.5843
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2363
$P'_{g,F'}$	0.4838
$P'_{i,h}$	0.7698

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

$\Delta P_{C,t}$	0.0266
$\Delta P_{C,s}$	0.0124
$\Delta P_{F,e}$	-0.0026
$\Delta P_{g,F}$	-0.0083
$\Delta P_{i,g}$	-0.0428

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	643
$T_{10}^{13.0}$ [°C]	635
$T_{10}^{7.6}$ [°C]	717
c_p [J/(g·K)]	0.620
λ [W/(m·K)]	0.840
ρ [g/cm^3]	3.75
E [10^3 N/mm^2]	115
μ	0.289
K [10^{-6} mm^2/N]	1.81
HK$_{0.1/20}$	740
HG	2
B	0
CR	3
FR	2
SR	52.3
AR	1
PR	3.3

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	4.0	4.7	5.4	1.7	2.4	3.0
+20/ +40	4.1	5.0	5.8	2.6	3.5	4.3
+60/ +80	4.3	5.2	6.2	3.1	4.1	5.0

Data Sheet

SCHOTT

N-LAK9
691547.351

$n_d = 1.69100$	$\nu_d = 54.71$	$n_F - n_C = 0.012631$
$n_e = 1.69401$	$\nu_e = 54.48$	$n_{F'} - n_{C'} = 0.012738$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.65294
$n_{1970.1}$	1970.1	1.66032
$n_{1529.6}$	1529.6	1.66804
$n_{1060.0}$	1060.0	1.67584
n_t	1014.0	1.67672
n_s	852.1	1.68033
n_r	706.5	1.68497
n_C	656.3	1.68716
$n_{C'}$	643.8	1.68777
$n_{632.8}$	632.8	1.68834
n_D	589.3	1.69089
n_d	587.6	1.69100
n_e	546.1	1.69401
n_F	486.1	1.69979
$n_{F'}$	480.0	1.70051
n_g	435.8	1.70667
n_h	404.7	1.71239
n_i	365.0	1.72219
$n_{334.1}$	334.1	1.73281
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.46231905
B_2	0.344399589
B_3	1.15508372
C_1	0.00724270156
C_2	0.0243353131
C_3	85.4686868

Constants of Dispersion dn/dT

D_0	$2.11 \cdot 10^{-6}$
D_1	$1.11 \cdot 10^{-8}$
D_2	$1.82 \cdot 10^{-12}$
E_0	$4.74 \cdot 10^{-7}$
E_1	$-3.47 \cdot 10^{-10}$
λ_{TK} [µm]	0.146

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.492	0.170
2325	0.752	0.490
1970	0.959	0.900
1530	0.992	0.980
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.994
546	0.998	0.994
500	0.997	0.992
460	0.994	0.985
436	0.991	0.977
420	0.988	0.971
405	0.983	0.958
400	0.980	0.950
390	0.971	0.930
380	0.954	0.890
370	0.928	0.830
365	0.906	0.782
350	0.787	0.550
334	0.556	0.230
320	0.276	0.040
310	0.123	
300	0.044	
290	0.010	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2859
$P_{C,s}$	0.5409
$P_{d,C}$	0.3043
$P_{e,d}$	0.2384
$P_{g,F}$	0.5447
$P_{i,h}$	0.7756
$P'_{s,t}$	0.2834
$P'_{C',s}$	0.5844
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2363
$P'_{g,F'}$	0.4835
$P'_{i,h}$	0.7690

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

$\Delta P_{C,t}$	0.0223
$\Delta P_{C,s}$	0.0105
$\Delta P_{F,e}$	-0.0023
$\Delta P_{g,F}$	-0.0071
$\Delta P_{i,g}$	-0.0367

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.5
T_g [°C]	656
$T_{10}^{13.0}$ [°C]	645
$T_{10}^{7.6}$ [°C]	722
c_p [J/(g·K)]	0.649
λ [W/(m·K)]	0.908
ρ [g/cm^3]	3.51
E [10^3 N/mm^2]	110
µ	0.285
K [10^{-6} mm^2/N]	1.83
HK$_{0.1/20}$	700
HG	3
B	0
CR	3
FR	3
SR	52
AR	1.2
PR	4.3

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	3.0	3.9	4.6	0.8	1.6	2.3
+20/ +40	2.9	3.7	4.4	1.5	2.2	2.9
+60/ +80	3.1	3.8	4.4	2.0	2.7	3.3

Data Sheet

SCHOTT

N-LAK10
720506.369

$n_d = 1.72003$	$\nu_d = 50.62$	$n_F - n_C = 0.014224$
$n_e = 1.72341$	$\nu_e = 50.39$	$n_{F'} - n_{C'} = 0.014357$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67890
$n_{1970.1}$	1970.1	1.68670
$n_{1529.6}$	1529.6	1.69488
$n_{1060.0}$	1060.0	1.70324
n_t	1014.0	1.70419
n_s	852.1	1.70815
n_r	706.5	1.71328
n_C	656.3	1.71572
$n_{C'}$	643.8	1.71641
$n_{632.8}$	632.8	1.71705
n_D	589.3	1.71990
n_d	587.6	1.72003
n_e	546.1	1.72341
n_F	486.1	1.72995
$n_{F'}$	480.0	1.73077
n_g	435.8	1.73779
n_h	404.7	1.74438
n_i	365.0	1.75578
$n_{334.1}$	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	1.72878017
B_2	0.169257825
B_3	1.19386956
C_1	0.00886014635
C_2	0.0363416509
C_3	82.9009069

Constants of Dispersion dn/dT

D_0	$4.10 \cdot 10^{-6}$
D_1	$1.23 \cdot 10^{-8}$
D_2	$-7.85 \cdot 10^{-12}$
E_0	$5.08 \cdot 10^{-7}$
E_1	$5.76 \cdot 10^{-10}$
λ_{TK} [µm]	0.205

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.428	0.120
2325	0.720	0.440
1970	0.950	0.880
1530	0.991	0.977
1060	0.998	0.995
700	0.999	0.995
660	0.998	0.994
620	0.998	0.994
580	0.997	0.993
546	0.998	0.994
500	0.995	0.988
460	0.991	0.977
436	0.985	0.963
420	0.976	0.940
405	0.963	0.910
400	0.959	0.900
390	0.937	0.850
380	0.901	0.770
370	0.831	0.630
365	0.770	0.520
350	0.442	0.130
334	0.026	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2779
$P_{C,s}$	0.5328
$P_{d,C}$	0.3025
$P_{e,d}$	0.2381
$P_{g,F}$	0.5515
$P_{i,h}$	0.8015
$P'_{s,t}$	0.2753
$P'_{C',s}$	0.5755
$P'_{d,C'}$	0.2521
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4894
$P'_{i,h}$	0.7941

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

$\Delta P_{C,t}$	0.0256
$\Delta P_{C,s}$	0.0119
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0072
$\Delta P_{i,g}$	-0.0354

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.8
T_g [°C]	636
$T_{10}^{13.0}$ [°C]	631
$T_{10}^{7.6}$ [°C]	714
c_p [J/(g·K)]	0.640
λ [W/(m·K)]	0.860
ρ [g/cm^3]	3.69
E [10^3 N/mm^2]	116
μ	0.286
K [10^{-6} mm^2/N]	1.97
HK$_{0.1/20}$	780
HG	2
B	0
CR	2
FR	2
SR	52.3
AR	1
PR	3

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	4.1	5.0	5.8	1.8	2.6	3.4
+20/ +40	4.2	5.1	6.1	2.7	3.6	4.6
+60/ +80	4.4	5.4	6.5	3.2	4.3	5.3

Data Sheet

SCHOTT

N-LAK12
678552.410

$n_d = 1.67790$	$\nu_d = 55.20$	$n_F - n_C = 0.012281$
$n_e = 1.68083$	$\nu_e = 54.92$	$n_{F'} - n_{C'} = 0.012396$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.64541
$n_{1970.1}$	1970.1	1.65107
$n_{1529.6}$	1529.6	1.65713
$n_{1060.0}$	1060.0	1.66366
n_t	1014.0	1.66443
n_s	852.1	1.66772
n_r	706.5	1.67209
n_C	656.3	1.67419
$n_{C'}$	643.8	1.67478
$n_{632.8}$	632.8	1.67533
n_D	589.3	1.67779
n_d	587.6	1.67790
n_e	546.1	1.68083
n_F	486.1	1.68647
$n_{F'}$	480.0	1.68717
n_g	435.8	1.69320
n_h	404.7	1.69882
n_i	365.0	1.70842
$n_{334.1}$	334.1	1.71881
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.17365704
B_2	0.588992398
B_3	0.978014394
C_1	0.00577031797
C_2	0.0200401678
C_3	95.4873482

Constants of Dispersion dn/dT

D_0	$-5.67 \cdot 10^{-6}$
D_1	$8.27 \cdot 10^{-9}$
D_2	$1.27 \cdot 10^{-12}$
E_0	$5.25 \cdot 10^{-7}$
E_1	$6.30 \cdot 10^{-10}$
λ_{TK} [µm]	0.162

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.592	0.270
2325	0.764	0.510
1970	0.937	0.850
1530	0.990	0.975
1060	0.997	0.992
700	0.997	0.993
660	0.996	0.989
620	0.995	0.988
580	0.996	0.990
546	0.996	0.991
500	0.994	0.986
460	0.987	0.968
436	0.983	0.958
420	0.981	0.952
405	0.977	0.943
400	0.976	0.940
390	0.967	0.920
380	0.946	0.870
370	0.910	0.790
365	0.882	0.730
350	0.733	0.460
334	0.468	0.150
320	0.152	0.010
310	0.032	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/31
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2673
$P_{C,s}$	0.5269
$P_{d,C}$	0.3024
$P_{e,d}$	0.2383
$P_{g,F}$	0.5485
$P_{i,h}$	0.7818
$P'_{s,t}$	0.2648
$P'_{C',s}$	0.5695
$P'_{d,C'}$	0.2521
$P'_{e,d}$	0.2361
$P'_{g,F'}$	0.4866
$P'_{i,h}$	0.7746

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

$\Delta P_{C,t}$	-0.0126
$\Delta P_{C,s}$	-0.0047
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0024
$\Delta P_{i,g}$	-0.0226

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.3
T_g [°C]	614
$T_{10}^{13.0}$ [°C]	606
$T_{10}^{7.6}$ [°C]	714
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	4.10
E [10^3 N/mm^2]	87
μ	0.288
K [10^{-6} mm^2/N]	1.44
HK$_{0.1/20}$	560
HG	6
B	1
CR	3
FR	1
SR	53.3
AR	3.3
PR	4.3

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	-0.3	0.3	-3.2	-2.6	-2.0
+20/ +40	-1.2	-0.4	0.3	-2.7	-1.9	-1.2
+60/ +80	-1.2	-0.3	0.5	-2.3	-1.5	-0.7

Data Sheet

SCHOTT

N-LAK14
697554.363

$n_d = 1.69680$	$\nu_d = 55.41$	$n_F - n_C = 0.012575$
$n_e = 1.69980$	$\nu_e = 55.19$	$n_{F'} - n_{C'} = 0.012679$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.65783
$n_{1970.1}$	1970.1	1.66554
$n_{1529.6}$	1529.6	1.67357
$n_{1060.0}$	1060.0	1.68157
n_t	1014.0	1.68246
n_s	852.1	1.68612
n_r	706.5	1.69077
n_C	656.3	1.69297
$n_{C'}$	643.8	1.69358
$n_{632.8}$	632.8	1.69415
n_D	589.3	1.69669
n_d	587.6	1.69680
n_e	546.1	1.69980
n_F	486.1	1.70554
$n_{F'}$	480.0	1.70626
n_g	435.8	1.71237
n_h	404.7	1.71804
n_i	365.0	1.72772
$n_{334.1}$	334.1	1.73819
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.50781212
B_2	0.318866829
B_3	1.14287213
C_1	0.00746098727
C_2	0.0242024834
C_3	80.9565165

Constants of Dispersion dn/dT

D_0	$2.68 \cdot 10^{-6}$
D_1	$1.15 \cdot 10^{-8}$
D_2	$-1.44 \cdot 10^{-11}$
E_0	$3.72 \cdot 10^{-7}$
E_1	$5.53 \cdot 10^{-10}$
λ_{TK} [µm]	0.226

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.382	0.090
2325	0.672	0.370
1970	0.933	0.840
1530	0.984	0.960
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.994
620	0.997	0.992
580	0.997	0.993
546	0.998	0.995
500	0.997	0.992
460	0.994	0.984
436	0.991	0.977
420	0.988	0.971
405	0.984	0.960
400	0.981	0.953
390	0.971	0.930
380	0.959	0.900
370	0.933	0.840
365	0.915	0.800
350	0.821	0.610
334	0.642	0.330
320	0.428	0.120
310	0.239	0.040
300	0.089	
290	0.019	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2903
$P_{C,s}$	0.5447
$P_{d,C}$	0.3049
$P_{e,d}$	0.2384
$P_{g,F}$	0.5427
$P_{i,h}$	0.7701
$P'_{s,t}$	0.2880
$P'_{C',s}$	0.5885
$P'_{d,C'}$	0.2542
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4819
$P'_{i,h}$	0.7638

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

$\Delta P_{C,t}$	0.0273
$\Delta P_{C,s}$	0.0127
$\Delta P_{F,e}$	-0.0026
$\Delta P_{g,F}$	-0.0079
$\Delta P_{i,g}$	-0.0386

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.9
T_g [°C]	661
$T_{10}^{13.0}$ [°C]	653
$T_{10}^{7.6}$ [°C]	734
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.63
E [10^3 N/mm^2]	111
μ	0.283
K [10^{-6} mm^2/N]	1.73
HK$_{0.1/20}$	730
HG	2
B	0
CR	3
FR	2
SR	52.3
AR	1
PR	3

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	3.2	3.8	4.4	0.9	1.5	2.1
+20/ +40	3.2	4.0	4.7	1.8	2.5	3.2
+60/ +80	3.4	4.2	5.0	2.2	3.0	3.8

Data Sheet

SCHOTT

N-LAK21
640601.374

$n_d = 1.64049$	$\nu_d = 60.10$	$n_F - n_C = 0.010657$
$n_e = 1.64304$	$\nu_e = 59.86$	$n_{F'} - n_{C'} = 0.010743$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.60776
$n_{1970.1}$	1970.1	1.61416
$n_{1529.6}$	1529.6	1.62086
$n_{1060.0}$	1060.0	1.62759
n_t	1014.0	1.62834
n_s	852.1	1.63143
n_r	706.5	1.63538
n_C	656.3	1.63724
$n_{C'}$	643.8	1.63776
$n_{632.8}$	632.8	1.63825
n_D	589.3	1.64040
n_d	587.6	1.64049
n_e	546.1	1.64304
n_F	486.1	1.64790
$n_{F'}$	480.0	1.64850
n_g	435.8	1.65366
n_h	404.7	1.65844
n_i	365.0	1.66657
$n_{334.1}$	334.1	1.67532
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.22718116
B_2	0.420783743
B_3	1.01284843
C_1	0.00602075682
C_2	0.0196862889
C_3	88.4370099

Constants of Dispersion dn/dT

D_0	$-2.36 \cdot 10^{-6}$
D_1	$1.15 \cdot 10^{-8}$
D_2	$1.11 \cdot 10^{-11}$
E_0	$3.10 \cdot 10^{-7}$
E_1	$2.78 \cdot 10^{-10}$
λ_{TK} [µm]	0.234

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.536	0.210
2325	0.752	0.490
1970	0.946	0.870
1530	0.988	0.970
1060	0.998	0.994
700	0.998	0.994
660	0.996	0.991
620	0.996	0.990
580	0.997	0.992
546	0.997	0.992
500	0.995	0.988
460	0.990	0.976
436	0.987	0.969
420	0.985	0.963
405	0.982	0.955
400	0.979	0.950
390	0.971	0.930
380	0.959	0.900
370	0.928	0.830
365	0.905	0.780
350	0.799	0.570
334	0.565	0.240
320	0.250	0.040
310	0.060	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/31
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2900
$P_{C,s}$	0.5453
$P_{d,C}$	0.3052
$P_{e,d}$	0.2385
$P_{g,F}$	0.5411
$P_{i,h}$	0.7630
$P'_{s,t}$	0.2877
$P'_{C',s}$	0.5892
$P'_{d,C'}$	0.2545
$P'_{e,d}$	0.2366
$P'_{g,F'}$	0.4804
$P'_{i,h}$	0.7569

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

$\Delta P_{C,t}$	0.0052
$\Delta P_{C,s}$	0.0023
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0017
$\Delta P_{i,g}$	-0.0090

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.1
T_g [°C]	639
$T_{10}^{13.0}$ [°C]	627
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	0.590
λ [W/(m·K)]	0.880
ρ [g/cm^3]	3.74
E [10^3 N/mm^2]	91
μ	0.272
K [10^{-6} mm^2/N]	1.74
HK$_{0.1/20}$	600
HG	5
B	0
CR	4
FR	2
SR	53.2
AR	4.3
PR	4.3

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	0.6	1.1	1.6	-1.6	-1.2	-0.7
+20/ +40	0.5	1.0	1.6	-0.9	-0.4	0.1
+60/ +80	0.7	1.3	1.9	-0.4	0.1	0.7

Data Sheet

SCHOTT

N-LAK22
651559.377

$n_d = 1.65113$	$\nu_d = 55.89$	$n_F - n_C = 0.011650$
$n_e = 1.65391$	$\nu_e = 55.63$	$n_{F'} - n_{C'} = 0.011755$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61915
$n_{1970.1}$	1970.1	1.62488
$n_{1529.6}$	1529.6	1.63100
$n_{1060.0}$	1060.0	1.63747
n_t	1014.0	1.63823
n_s	852.1	1.64141
n_r	706.5	1.64560
n_C	656.3	1.64760
$n_{C'}$	643.8	1.64816
$n_{632.8}$	632.8	1.64868
n_D	589.3	1.65103
n_d	587.6	1.65113
n_e	546.1	1.65391
n_F	486.1	1.65925
$n_{F'}$	480.0	1.65992
n_g	435.8	1.66562
n_h	404.7	1.67092
n_i	365.0	1.67997
$n_{334.1}$	334.1	1.68975
$n_{312.6}$	312.6	1.69876
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.14229781
B_2	0.535138441
B_3	1.04088385
C_1	0.00585778594
C_2	0.0198546147
C_3	100.834017

Constants of Dispersion dn/dT

D_0	$1.36 \cdot 10^{-6}$
D_1	$1.49 \cdot 10^{-8}$
D_2	$-1.29 \cdot 10^{-11}$
E_0	$3.41 \cdot 10^{-7}$
E_1	$2.09 \cdot 10^{-10}$
λ_{TK} [µm]	0.262

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.672	0.370
2325	0.826	0.620
1970	0.959	0.900
1530	0.991	0.978
1060	0.998	0.994
700	0.998	0.994
660	0.997	0.992
620	0.996	0.991
580	0.997	0.993
546	0.997	0.993
500	0.995	0.988
460	0.992	0.980
436	0.990	0.975
420	0.989	0.973
405	0.987	0.968
400	0.985	0.964
390	0.980	0.950
380	0.967	0.920
370	0.947	0.873
365	0.933	0.840
350	0.844	0.655
334	0.657	0.350
320	0.398	0.100
310	0.209	0.020
300	0.078	
290	0.014	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2729
$P_{C,s}$	0.5314
$P_{d,C}$	0.3031
$P_{e,d}$	0.2384
$P_{g,F}$	0.5467
$P_{i,h}$	0.7771
$P'_{s,t}$	0.2704
$P'_{C',s}$	0.5744
$P'_{d,C'}$	0.2527
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4851
$P'_{i,h}$	0.7702

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

$\Delta P_{C,t}$	-0.0058
$\Delta P_{C,s}$	-0.0018
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0031
$\Delta P_{i,g}$	-0.0236

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	689
$T_{10}^{13.0}$ [°C]	673
$T_{10}^{7.6}$ [°C]	0
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	
ρ [g/cm^3]	3.77
E [10^3 N/mm^2]	90
μ	0.266
K [10^{-6} mm^2/N]	1.82
HK$_{0.1/20}$	600
HG	4
B	0
CR	2
FR	2
SR	51.2
AR	1
PR	2.3

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	2.2	2.9	3.6	0.0	0.6	1.3
+20/ +40	2.4	3.1	3.9	1.0	1.7	2.4
+60/ +80	2.7	3.4	4.2	1.6	2.3	3.1

Data Sheet

SCHOTT

N-LAK33A
754523.422

$n_d = 1.75393$	$\nu_d = 52.27$	$n_F - n_C = 0.014424$
$n_e = 1.75737$	$\nu_e = 52.04$	$n_{F'} - n_{C'} = 0.014554$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.71278
$n_{1970.1}$	1970.1	1.72047
$n_{1529.6}$	1529.6	1.72855
$n_{1060.0}$	1060.0	1.73690
n_t	1014.0	1.73786
n_s	852.1	1.74186
n_r	706.5	1.74707
n_C	656.3	1.74956
$n_{C'}$	643.8	1.75025
$n_{632.8}$	632.8	1.75090
n_D	589.3	1.75380
n_d	587.6	1.75393
n_e	546.1	1.75737
n_F	486.1	1.76398
$n_{F'}$	480.0	1.76481
n_g	435.8	1.77187
n_h	404.7	1.77845
n_i	365.0	1.78972
$n_{334.1}$	334.1	1.80195
$n_{312.6}$	312.6	1.81325
$n_{296.7}$	296.7	1.82361
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.44116999
B_2	0.571749501
B_3	1.16605226
C_1	0.00680933877
C_2	0.0222291824
C_3	80.9379555

Constants of Dispersion dn/dT

D_0	$2.63 \cdot 10^{-6}$
D_1	$1.11 \cdot 10^{-8}$
D_2	$-3.92 \cdot 10^{-12}$
E_0	$5.02 \cdot 10^{-7}$
E_1	$5.08 \cdot 10^{-10}$
λ_{TK} [µm]	0.188

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.686	0.390
1970	0.937	0.850
1530	0.990	0.975
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.995
620	0.998	0.994
580	0.998	0.995
546	0.998	0.996
500	0.998	0.994
460	0.994	0.986
436	0.991	0.978
420	0.988	0.970
405	0.981	0.953
400	0.976	0.940
390	0.967	0.920
380	0.950	0.880
370	0.924	0.820
365	0.905	0.780
350	0.804	0.580
334	0.601	0.280
320	0.336	0.060
310	0.160	
300	0.053	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2770
$P_{C,s}$	0.5338
$P_{d,C}$	0.3032
$P_{e,d}$	0.2383
$P_{g,F}$	0.5473
$P_{i,h}$	0.7814
$P'_{s,t}$	0.2746
$P'_{C',s}$	0.5769
$P'_{d,C'}$	0.2527
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4857
$P'_{i,h}$	0.7744

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

$\Delta P_{C,t}$	0.0180
$\Delta P_{C,s}$	0.0091
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0086
$\Delta P_{i,g}$	-0.0484

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.0
T_g [°C]	669
$T_{10}^{13.0}$ [°C]	667
$T_{10}^{7.6}$ [°C]	744
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	0.810
ρ [g/cm^3]	4.22
E [10^3 N/mm^2]	121
μ	0.292
K [10^{-6} mm^2/N]	1.49
HK$_{0.1/20}$	740
HG	2
B	0
CR	1
FR	1
SR	51
AR	1
PR	2

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	3.4	4.3	5.1	1.1	1.9	2.7
+20/ +40	3.4	4.4	5.3	1.9	2.9	3.7
+60/ +80	3.6	4.7	5.6	2.4	3.5	4.4

Data Sheet

SCHOTT

N-LAK34
729545.402

$n_d = 1.72916$	$\nu_d = 54.50$	$n_F - n_C = 0.013379$
$n_e = 1.73235$	$\nu_e = 54.27$	$n_{F'} - n_{C'} = 0.013493$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.68925
$n_{1970.1}$	1970.1	1.69695
$n_{1529.6}$	1529.6	1.70500
$n_{1060.0}$	1060.0	1.71315
n_t	1014.0	1.71407
n_s	852.1	1.71787
n_r	706.5	1.72277
n_C	656.3	1.72509
$n_{C'}$	643.8	1.72574
$n_{632.8}$	632.8	1.72634
n_D	589.3	1.72904
n_d	587.6	1.72916
n_e	546.1	1.73235
n_F	486.1	1.73847
$n_{F'}$	480.0	1.73923
n_g	435.8	1.74575
n_h	404.7	1.75180
n_i	365.0	1.76214
$n_{334.1}$	334.1	1.77331
$n_{312.6}$	312.6	1.78359
$n_{296.7}$	296.7	1.79296
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.26661442
B_2	0.665919318
B_3	1.1249612
C_1	0.00589278062
C_2	0.0197509041
C_3	78.8894174

Constants of Dispersion dn/dT

D_0	$1.96 \cdot 10^{-6}$
D_1	$9.65 \cdot 10^{-9}$
D_2	$4.40 \cdot 10^{-12}$
E_0	$4.91 \cdot 10^{-7}$
E_1	$5.28 \cdot 10^{-10}$
λ_{TK} [µm]	0.161

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.672	0.370
1970	0.937	0.850
1530	0.984	0.960
1060	0.998	0.995
700	0.999	0.997
660	0.999	0.997
620	0.998	0.996
580	0.998	0.995
546	0.999	0.997
500	0.998	0.994
460	0.995	0.987
436	0.992	0.979
420	0.989	0.972
405	0.983	0.959
400	0.981	0.952
390	0.976	0.940
380	0.963	0.910
370	0.941	0.860
365	0.924	0.820
350	0.852	0.670
334	0.713	0.430
320	0.525	0.200
310	0.377	0.070
300	0.281	0.030
290	0.168	0.010
280	0.073	
270	0.014	
260		
250		

Color Code

λ_{80}/λ_5	37/28
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2841
$P_{C,s}$	0.5398
$P_{d,C}$	0.3042
$P_{e,d}$	0.2384
$P_{g,F}$	0.5443
$P_{i,h}$	0.7726
$P'_{s,t}$	0.2817
$P'_{C',s}$	0.5833
$P'_{d,C'}$	0.2536
$P'_{e,d}$	0.2364
$P'_{g,F'}$	0.4832
$P'_{i,h}$	0.7661

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

$\Delta P_{C,t}$	0.0204
$\Delta P_{C,s}$	0.0099
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0079
$\Delta P_{i,g}$	-0.0423

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.9
T_g [°C]	668
$T_{10}^{13.0}$ [°C]	668
$T_{10}^{7.6}$ [°C]	740
c_p [J/(g·K)]	0.520
λ [W/(m·K)]	0.820
ρ [g/cm^3]	4.02
E [10^3 N/mm^2]	117
μ	0.290
K [10^{-6} mm^2/N]	1.52
HK$_{0.1/20}$	740
HG	2
B	0
CR	1
FR	0
SR	52.3
AR	1
PR	3.3

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	3.1	3.9	4.6	0.8	1.5	2.2
+20/ +40	3.0	3.8	4.6	1.5	2.3	3.1
+60/ +80	3.1	4.0	4.9	2.0	2.9	3.7

Data Sheet

SCHOTT

P-LAK35
693532.385

$n_d = 1.69350$	$\nu_d = 53.20$	$n_F - n_C = 0.013036$
$n_e = 1.69661$	$\nu_e = 52.95$	$n_{F'} - n_{C'} = 0.013156$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.65762
$n_{1970.1}$	1970.1	1.66411
$n_{1529.6}$	1529.6	1.67100
$n_{1060.0}$	1060.0	1.67824
n_t	1014.0	1.67909
n_s	852.1	1.68264
n_r	706.5	1.68732
n_C	656.3	1.68955
$n_{C'}$	643.8	1.69018
$n_{632.8}$	632.8	1.69077
n_D	589.3	1.69338
n_d	587.6	1.69350
n_e	546.1	1.69661
n_F	486.1	1.70259
$n_{F'}$	480.0	1.70334
n_g	435.8	1.70974
n_h	404.7	1.71569
n_i	365.0	1.72590
$n_{334.1}$	334.1	1.73698
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.3932426
B_2	0.418882766
B_3	1.043807
C_1	0.00715959695
C_2	0.0233637446
C_3	88.3284426

Constants of Dispersion dn/dT

D_0	$88.30 \cdot 10^{0}$
D_1	$-1.90 \cdot 10^{-6}$
D_2	$7.99 \cdot 10^{-9}$
E_0	$7.76 \cdot 10^{-12}$
E_1	$5.64 \cdot 10^{-7}$
λ_{TK} [µm]	6.57e-10

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.546	0.220
2325	0.758	0.500
1970	0.946	0.870
1530	0.992	0.981
1060	0.999	0.999
700	0.997	0.993
660	0.997	0.992
620	0.997	0.992
580	0.997	0.993
546	0.998	0.994
500	0.997	0.992
460	0.994	0.985
436	0.992	0.980
420	0.991	0.977
405	0.989	0.973
400	0.988	0.970
390	0.984	0.960
380	0.976	0.940
370	0.962	0.907
365	0.950	0.880
350	0.887	0.740
334	0.746	0.480
320	0.536	0.210
310	0.353	0.060
300	0.158	0.005
290	0.026	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/29
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2723
$P_{C,s}$	0.5304
$P_{d,C}$	0.3028
$P_{e,d}$	0.2383
$P_{g,F}$	0.5482
$P_{i,h}$	0.7832
$P'_{s,t}$	0.2698
$P'_{C',s}$	0.5732
$P'_{d,C'}$	0.2524
$P'_{e,d}$	0.2361
$P'_{g,F'}$	0.4864
$P'_{i,h}$	0.7761

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

$\Delta P_{C,t}$	0.0053
$\Delta P_{C,s}$	0.0034
$\Delta P_{F,e}$	-0.0015
$\Delta P_{g,F}$	-0.0061
$\Delta P_{i,g}$	-0.0379

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.7
T_g [°C]	508
$T_{10}^{13.0}$ [°C]	511
$T_{10}^{7.6}$ [°C]	598
c_p [J/(g·K)]	0.630
λ [W/(m·K)]	0.720
AT [°C]	544
ρ [g/cm^3]	3.85
E [10^3 N/mm^2]	101
µ	0.289
K [10^{-6} mm^2/N]	1.76
HK$_{0.1/20}$	616
HG	
HG-J	119
B	0
CR	2
FR	5
SR	53.3
AR	1.3
PR	4.3
SR-J	4
WR-J	3

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	0.2	1.1	1.9	2.7	-1.2	-0.4
+20/ +40	0.3	0.8	1.7	2.6	-0.7	0.2
+60/ +80	1.1	0.9	1.9	2.9	-0.3	0.7

Data Sheet

SCHOTT

LLF1
548458.294

$n_d = 1.54814$	$\nu_d = 45.75$	$n_F - n_C = 0.011981$
$n_e = 1.55099$	$\nu_e = 45.47$	$n_{F'} - n_{C'} = 0.012118$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.51865
$n_{1970.1}$	1970.1	1.52354
$n_{1529.6}$	1529.6	1.52884
$n_{1060.0}$	1060.0	1.53470
n_t	1014.0	1.53541
n_s	852.1	1.53845
n_r	706.5	1.54256
n_C	656.3	1.54457
$n_{C'}$	643.8	1.54513
$n_{632.8}$	632.8	1.54566
n_D	589.3	1.54803
n_d	587.6	1.54814
n_e	546.1	1.55099
n_F	486.1	1.55655
$n_{F'}$	480.0	1.55725
n_g	435.8	1.56333
n_h	404.7	1.56911
n_i	365.0	1.57932
$n_{334.1}$	334.1	1.59092
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.21640125
B_2	0.13366454
B_3	0.883399468
C_1	0.00857807248
C_2	0.0420143003
C_3	107.59306

Constants of Dispersion dn/dT

D_0	$3.25 \cdot 10^{-7}$
D_1	$1.74 \cdot 10^{-8}$
D_2	$-6.12 \cdot 10^{-11}$
E_0	$6.53 \cdot 10^{-7}$
E_1	$2.58 \cdot 10^{-10}$
λ_{TK} [µm]	0.233

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.758	0.500
2325	0.821	0.610
1970	0.933	0.840
1530	0.996	0.990
1060	0.998	0.996
700	0.999	0.997
660	0.998	0.996
620	0.998	0.996
580	0.999	0.997
546	0.999	0.997
500	0.998	0.996
460	0.998	0.996
436	0.998	0.996
420	0.998	0.995
405	0.998	0.994
400	0.997	0.993
390	0.997	0.992
380	0.995	0.988
370	0.994	0.984
365	0.992	0.981
350	0.982	0.955
334	0.919	0.810
320	0.618	0.300
310	0.240	0.010
300	0.024	
290	0.002	
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	33/31
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2537
$P_{C,s}$	0.5108
$P_{d,C}$	0.2983
$P_{e,d}$	0.2376
$P_{g,F}$	0.5660
$P_{i,h}$	0.8520
$P'_{s,t}$	0.2508
$P'_{C',s}$	0.5516
$P'_{d,C'}$	0.2484
$P'_{e,d}$	0.2349
$P'_{g,F'}$	0.5017
$P'_{i,h}$	0.8424

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

$\Delta P_{C,t}$	0.0025
$\Delta P_{C,s}$	0.0012
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0009
$\Delta P_{i,g}$	-0.0062

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	431
$T_{10}^{13.0}$ [°C]	426
$T_{10}^{7.6}$ [°C]	628
c_p [J/(g·K)]	0.650
λ [W/(m·K)]	
ρ [g/cm^3]	2.94
E [10^3 N/mm^2]	60
µ	0.208
K [10^{-6} mm^2/N]	3.05
HK$_{0.1/20}$	450
HG	3
B	1
CR	1
FR	0
SR	1
AR	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	1.5	2.4	3.4	-0.6	0.3	1.3
+20/ +40	1.9	2.9	3.9	0.6	1.5	2.5
+60/ +80	2.0	3.0	4.1	1.0	2.0	3.0

Data Sheet

SCHOTT

N-BAF4
606437.289

$n_d = 1.60568$	$\nu_d = 43.72$	$n_F - n_C = 0.013853$
$n_e = 1.60897$	$\nu_e = 43.43$	$n_{F'} - n_{C'} = 0.014021$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57092
$n_{1970.1}$	1970.1	1.57685
$n_{1529.6}$	1529.6	1.58323
$n_{1060.0}$	1060.0	1.59016
n_t	1014.0	1.59099
n_s	852.1	1.59452
n_r	706.5	1.59926
n_C	656.3	1.60157
$n_{C'}$	643.8	1.60222
$n_{632.8}$	632.8	1.60282
n_D	589.3	1.60556
n_d	587.6	1.60568
n_e	546.1	1.60897
n_F	486.1	1.61542
$n_{F'}$	480.0	1.61624
n_g	435.8	1.62336
n_h	404.7	1.63022
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	1.42056328
B_2	0.102721269
B_3	1.14380976
C_1	0.00942015382
C_2	0.0531087291
C_3	110.278856

Constants of Dispersion dn/dT

D_0	$9.39 \cdot 10^{-7}$
D_1	$1.24 \cdot 10^{-8}$
D_2	$-9.00 \cdot 10^{-12}$
E_0	$6.17 \cdot 10^{-7}$
E_1	$8.42 \cdot 10^{-10}$
λ_{TK} [µm]	0.242

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.707	0.420
2325	0.837	0.640
1970	0.954	0.890
1530	0.991	0.977
1060	0.998	0.994
700	0.998	0.994
660	0.996	0.991
620	0.996	0.990
580	0.997	0.992
546	0.997	0.992
500	0.994	0.985
460	0.988	0.971
436	0.983	0.959
420	0.976	0.940
405	0.959	0.900
400	0.946	0.870
390	0.901	0.770
380	0.804	0.580
370	0.601	0.280
365	0.442	0.130
350	0.012	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2545
$P_{C,s}$	0.5089
$P_{d,C}$	0.2972
$P_{e,d}$	0.2372
$P_{g,F}$	0.5733
$P_{i,h}$	
$P'_{s,t}$	0.2515
$P'_{C',s}$	0.5491
$P'_{d,C'}$	0.2473
$P'_{e,d}$	0.2344
$P'_{g,F'}$	0.5081
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0110
$\Delta P_{C,s}$	0.0041
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0030
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.3
T_g [°C]	580
$T_{10}^{13.0}$ [°C]	580
$T_{10}^{7.6}$ [°C]	709
c_p [J/(g·K)]	0.740
λ [W/(m·K)]	1.020
ρ [g/cm^3]	2.89
E [10^3 N/mm^2]	85
μ	0.231
K [10^{-6} mm^2/N]	2.58
HK$_{0.1/20}$	610
HG	3
B	1
CR	1
FR	0
SR	1
AR	1.2
PR	1.3

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	2.2	3.1	4.1	0.1	0.9	1.9
+20/ +40	2.2	3.3	4.5	0.9	1.9	3.0
+60/ +80	2.4	3.6	4.9	1.3	2.5	3.8

Data Sheet

SCHOTT

N-BAF10
670471.375

$n_d = 1.67003$	$\nu_d = 47.11$	$n_F - n_C = 0.014222$
$n_e = 1.67341$	$\nu_e = 46.83$	$n_{F'} - n_{C'} = 0.014380$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.63524
$n_{1970.1}$	1970.1	1.64094
$n_{1529.6}$	1529.6	1.64714
$n_{1060.0}$	1060.0	1.65404
n_t	1014.0	1.65488
n_s	852.1	1.65849
n_r	706.5	1.66339
n_C	656.3	1.66578
$n_{C'}$	643.8	1.66645
$n_{632.8}$	632.8	1.66708
n_D	589.3	1.66990
n_d	587.6	1.67003
n_e	546.1	1.67341
n_F	486.1	1.68000
$n_{F'}$	480.0	1.68083
n_g	435.8	1.68801
n_h	404.7	1.69480
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	1.5851495
B_2	0.143559385
B_3	1.08521269
C_1	0.00926681282
C_2	0.0424489805
C_3	105.613573

Constants of Dispersion dn/dT

D_0	$3.79 \cdot 10^{-6}$
D_1	$1.28 \cdot 10^{-8}$
D_2	$-1.42 \cdot 10^{-11}$
E_0	$5.84 \cdot 10^{-7}$
E_1	$7.60 \cdot 10^{-10}$
λ_{TK} [µm]	0.22

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.727	0.450
2325	0.857	0.680
1970	0.967	0.920
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.994
660	0.996	0.990
620	0.996	0.991
580	0.996	0.990
546	0.996	0.990
500	0.992	0.981
460	0.987	0.967
436	0.981	0.954
420	0.976	0.940
405	0.959	0.900
400	0.950	0.880
390	0.915	0.800
380	0.847	0.660
370	0.720	0.440
365	0.626	0.310
350	0.176	0.010
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2539
$P_{C,s}$	0.5122
$P_{d,C}$	0.2989
$P_{e,d}$	0.2377
$P_{g,F}$	0.5629
$P_{i,h}$	
$P'_{s,t}$	0.2511
$P'_{C',s}$	0.5533
$P'_{d,C'}$	0.2489
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4990
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0024
$\Delta P_{C,s}$	-0.0005
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0016
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.0
T_g [°C]	660
$T_{10}^{13.0}$ [°C]	652
$T_{10}^{7.6}$ [°C]	790
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.780
ρ [g/cm^3]	3.75
E [10^3 N/mm^2]	89
µ	0.271
K [10^{-6} mm^2/N]	2.37
HK$_{0.1/20}$	620
HG	4
B	1
CR	1
FR	0
SR	4.3
AR	1.3
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	3.7	4.7	5.6	1.5	2.4	3.3
+20/ +40	3.8	4.9	6.0	2.4	3.5	4.5
+60/ +80	4.0	5.2	6.4	2.9	4.1	5.3

Data Sheet

SCHOTT

N-BAF51
652450.333

$n_d = 1.65224$	$\nu_d = 44.96$	$n_F - n_C = 0.014507$
$n_e = 1.65569$	$\nu_e = 44.67$	$n_{F'} - n_{C'} = 0.014677$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61873
$n_{1970.1}$	1970.1	1.62390
$n_{1529.6}$	1529.6	1.62961
$n_{1060.0}$	1060.0	1.63619
n_t	1014.0	1.63701
n_s	852.1	1.64059
n_r	706.5	1.64551
n_C	656.3	1.64792
$n_{C'}$	643.8	1.64860
$n_{632.8}$	632.8	1.64924
n_D	589.3	1.65211
n_d	587.6	1.65224
n_e	546.1	1.65569
n_F	486.1	1.66243
$n_{F'}$	480.0	1.66328
n_g	435.8	1.67065
n_h	404.7	1.67766
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	1.51503623
B_2	0.153621958
B_3	1.15427909
C_1	0.00942734715
C_2	0.04308265
C_3	124.889868

Constants of Dispersion dn/dT

D_0	$-2.84 \cdot 10^{-7}$
D_1	$1.04 \cdot 10^{-8}$
D_2	$-1.80 \cdot 10^{-11}$
E_0	$7.01 \cdot 10^{-7}$
E_1	$8.47 \cdot 10^{-10}$
λ_{TK} [µm]	0.219

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.746	0.480
2325	0.831	0.630
1970	0.946	0.870
1530	0.992	0.980
1060	0.997	0.993
700	0.997	0.993
660	0.996	0.990
620	0.996	0.990
580	0.997	0.992
546	0.996	0.991
500	0.994	0.985
460	0.988	0.970
436	0.982	0.956
420	0.976	0.940
405	0.963	0.910
400	0.954	0.890
390	0.924	0.820
380	0.862	0.690
370	0.739	0.470
365	0.642	0.330
350	0.209	0.020
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2463
$P_{C,s}$	0.5055
$P_{d,C}$	0.2977
$P_{e,d}$	0.2376
$P_{g,F}$	0.5670
$P_{i,h}$	
$P'_{s,t}$	0.2435
$P'_{C',s}$	0.5460
$P'_{d,C'}$	0.2479
$P'_{e,d}$	0.2349
$P'_{g,F'}$	0.5024
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0064
$\Delta P_{C,s}$	-0.0022
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0012
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.5
T_g [°C]	569
$T_{10}^{13.0}$ [°C]	574
$T_{10}^{7.6}$ [°C]	712
c_p [J/(g·K)]	0.840
λ [W/(m·K)]	0.670
ρ [g/cm^3]	3.33
E [10^3 N/mm^2]	91
µ	0.262
K [10^{-6} mm^2/N]	2.22
HK$_{0.1/20}$	560
HG	5
B	1
CR	2
FR	0
SR	5.4
AR	1.3
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	1.7	2.8	3.8	-0.5	0.5	1.5
+20/ +40	1.7	2.9	4.1	0.3	1.5	2.7
+60/ +80	1.8	3.1	4.4	0.7	2.0	3.3

Data Sheet

SCHOTT

N-BAF52
609466.305

$n_d = 1.60863$	$\nu_d = 46.60$	$n_F - n_C = 0.013061$
$n_e = 1.61173$	$\nu_e = 46.30$	$n_{F'} - n_{C'} = 0.013211$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57475
$n_{1970.1}$	1970.1	1.58067
$n_{1529.6}$	1529.6	1.58702
$n_{1060.0}$	1060.0	1.59381
n_t	1014.0	1.59461
n_s	852.1	1.59801
n_r	706.5	1.60254
n_C	656.3	1.60473
$n_{C'}$	643.8	1.60535
$n_{632.8}$	632.8	1.60593
n_D	589.3	1.60852
n_d	587.6	1.60863
n_e	546.1	1.61173
n_F	486.1	1.61779
$n_{F'}$	480.0	1.61856
n_g	435.8	1.62521
n_h	404.7	1.63157
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	1.43903433
B_2	0.0967046052
B_3	1.09875818
C_1	0.00907800128
C_2	0.050821208
C_3	105.691856

Constants of Dispersion dn/dT

D_0	$1.15 \cdot 10^{-6}$
D_1	$1.27 \cdot 10^{-8}$
D_2	$-5.08 \cdot 10^{-12}$
E_0	$5.64 \cdot 10^{-7}$
E_1	$6.38 \cdot 10^{-10}$
λ_{TK} [µm]	0.238

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.686	0.390
2325	0.831	0.630
1970	0.954	0.890
1530	0.990	0.975
1060	0.998	0.994
700	0.997	0.993
660	0.996	0.990
620	0.996	0.989
580	0.996	0.990
546	0.996	0.989
500	0.992	0.980
460	0.987	0.967
436	0.981	0.954
420	0.975	0.938
405	0.959	0.900
400	0.950	0.880
390	0.915	0.800
380	0.842	0.650
370	0.672	0.370
365	0.536	0.210
350	0.048	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2600
$P_{C,s}$	0.5147
$P_{d,C}$	0.2985
$P_{e,d}$	0.2374
$P_{g,F}$	0.5678
$P_{i,h}$	
$P'_{s,t}$	0.2571
$P'_{C',s}$	0.5555
$P'_{d,C'}$	0.2485
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5035
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0087
$\Delta P_{C,s}$	0.0031
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0024
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.8
T_g [°C]	594
$T_{10}^{13.0}$ [°C]	596
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	0.680
λ [W/(m·K)]	0.960
ρ [g/cm^3]	3.05
E [10^3 N/mm^2]	86
μ	0.237
K [10^{-6} mm^2/N]	2.42
HK$_{0.1/20}$	600
HG	3
B	1
CR	1
FR	0
SR	1
AR	1.3
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	2.3	3.1	4.0	0.2	0.9	1.8
+20/ +40	2.3	3.3	4.3	0.9	1.9	2.9
+60/ +80	2.5	3.6	4.7	1.4	2.5	3.6

Data Sheet

SCHOTT

LF5
581409.322

$n_d = 1.58144$	$\nu_d = 40.85$	$n_F - n_C = 0.014233$
$n_e = 1.58482$	$\nu_e = 40.57$	$n_{F'} - n_{C'} = 0.014413$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.54966
$n_{1970.1}$	1970.1	1.55445
$n_{1529.6}$	1529.6	1.55975
$n_{1060.0}$	1060.0	1.56594
n_t	1014.0	1.56672
n_s	852.1	1.57014
n_r	706.5	1.57489
n_C	656.3	1.57723
$n_{C'}$	643.8	1.57789
$n_{632.8}$	632.8	1.57851
n_D	589.3	1.58132
n_d	587.6	1.58144
n_e	546.1	1.58482
n_F	486.1	1.59146
$n_{F'}$	480.0	1.59231
n_g	435.8	1.59964
n_h	404.7	1.60668
n_i	365.0	1.61926
$n_{334.1}$	334.1	1.63380
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.28035628
B_2	0.163505973
B_3	0.893930112
C_1	0.00929854416
C_2	0.0449135769
C_3	110.493685

Constants of Dispersion dn/dT

D_0	$-2.27 \cdot 10^{-6}$
D_1	$9.71 \cdot 10^{-9}$
D_2	$-2.83 \cdot 10^{-11}$
E_0	$8.36 \cdot 10^{-7}$
E_1	$9.95 \cdot 10^{-10}$
λ_{TK} [µm]	0.228

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500		
2325	0.847	0.660
1970	0.946	0.870
1530	0.997	0.992
1060	0.999	0.998
700	0.999	0.998
660	0.999	0.998
620	0.999	0.998
580	0.999	0.997
546	0.999	0.997
500	0.998	0.996
460	0.998	0.995
436	0.998	0.994
420	0.997	0.993
405	0.997	0.992
400	0.997	0.992
390	0.994	0.984
380	0.989	0.973
370	0.984	0.961
365	0.981	0.954
350	0.950	0.880
334	0.799	0.570
320	0.320	0.040
310	0.040	
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/31
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2401
$P_{C,s}$	0.4981
$P_{d,C}$	0.2959
$P_{e,d}$	0.2373
$P_{g,F}$	0.5748
$P_{i,h}$	0.8836
$P'_{s,t}$	0.2371
$P'_{C',s}$	0.5378
$P'_{d,C'}$	0.2462
$P'_{e,d}$	0.2343
$P'_{g,F'}$	0.5091
$P'_{i,h}$	0.8726

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

$\Delta P_{C,t}$	-0.0006
$\Delta P_{C,s}$	0.0000
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0037

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.6
T_g [°C]	419
$T_{10}^{13.0}$ [°C]	411
$T_{10}^{7.6}$ [°C]	585
c_p [J/(g·K)]	0.657
λ [W/(m·K)]	0.866
ρ [g/cm^3]	3.22
E [10^3 N/mm^2]	59
μ	0.223
K [10^{-6} mm^2/N]	2.83
HK$_{0.1/20}$	450
HG	2
B	1
CR	2
FR	0
SR	1
AR	2.3
PR	2

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	0.8	1.9	3.1	-1.3	-0.2	0.9
+20/ +40	0.8	2.0	3.4	-0.6	0.7	2.0
+60/ +80	0.8	2.2	3.7	-0.3	1.1	2.6

Data Sheet

SCHOTT

F2
620364.360

n_d = 1.62004	ν_d = 36.37	$n_F - n_C$ = 0.017050
n_e = 1.62408	ν_e = 36.11	$n_{F'} - n_{C'}$ = 0.017284

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58465
$n_{1970.1}$	1970.1	1.58958
$n_{1529.6}$	1529.6	1.59513
$n_{1060.0}$	1060.0	1.60190
n_t	1014.0	1.60279
n_s	852.1	1.60671
n_r	706.5	1.61227
n_C	656.3	1.61503
$n_{C'}$	643.8	1.61582
$n_{632.8}$	632.8	1.61656
n_D	589.3	1.61989
n_d	587.6	1.62004
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64202
n_h	404.7	1.65064
n_i	365.0	1.66623
$n_{334.1}$	334.1	1.68455
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.34533359
B_2	0.209073176
B_3	0.937357162
C_1	0.00997743871
C_2	0.0470450767
C_3	111.886764

Constants of Dispersion dn/dT

D_0	$1.51 \cdot 10^{-6}$
D_1	$1.56 \cdot 10^{-8}$
D_2	$-2.78 \cdot 10^{-11}$
E_0	$9.34 \cdot 10^{-7}$
E_1	$1.04 \cdot 10^{-9}$
λ_{TK} [µm]	0.25

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.809	0.589
2325	0.859	0.685
1970	0.949	0.876
1530	0.996	0.989
1060	0.999	0.998
700	0.999	0.998
660	0.999	0.997
620	0.999	0.998
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.994
436	0.997	0.993
420	0.996	0.991
405	0.995	0.987
400	0.994	0.985
390	0.991	0.977
380	0.985	0.963
370	0.975	0.940
365	0.968	0.921
350	0.905	0.780
334	0.537	0.211
320	0.080	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/32
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2301
$P_{C,s}$	0.4882
$P_{d,C}$	0.2938
$P_{e,d}$	0.2370
$P_{g,F}$	0.5828
$P_{i,h}$	0.9142
$P'_{s,t}$	0.2270
$P'_{C',s}$	0.5270
$P'_{d,C'}$	0.2443
$P'_{e,d}$	0.2338
$P'_{g,F'}$	0.5159
$P'_{i,h}$	0.9018

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

$\Delta P_{C,t}$	0.0008
$\Delta P_{C,s}$	0.0005
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	0.0006

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	434
$T_{10}^{13.0}$ [°C]	430
$T_{10}^{7.6}$ [°C]	594
c_p [J/(g·K)]	0.557
λ [W/(m·K)]	0.780
ρ [g/cm^3]	3.60
E [10^3 N/mm^2]	57
µ	0.220
K [10^{-6} mm^2/N]	2.81
HK$_{0.1/20}$	420
HG	2
B	0
CR	1
FR	0
SR	1
AR	2.3
PR	1.3

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	2.4	3.9	5.5	0.3	1.6	3.2
+20/ +40	2.7	4.4	6.3	1.3	3.0	4.8
+60/ +80	3.0	4.8	6.8	1.9	3.7	5.7

Data Sheet

SCHOTT

F2HT
620364.360

$n_d = 1.62004$	$\nu_d = 36.37$	$n_F - n_C = 0.017050$
$n_e = 1.62408$	$\nu_e = 36.11$	$n_{F'} - n_{C'} = 0.017284$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58465
$n_{1970.1}$	1970.1	1.58958
$n_{1529.6}$	1529.6	1.59513
$n_{1060.0}$	1060.0	1.60190
n_t	1014.0	1.60279
n_s	852.1	1.60671
n_r	706.5	1.61227
n_C	656.3	1.61503
$n_{C'}$	643.8	1.61582
$n_{632.8}$	632.8	1.61656
n_D	589.3	1.61989
n_d	587.6	1.62004
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64202
n_h	404.7	1.65064
n_i	365.0	1.66623
$n_{334.1}$	334.1	1.68455
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.34533359
B_2	0.209073176
B_3	0.937357162
C_1	0.00997743871
C_2	0.0470450767
C_3	111.886764

Constants of Dispersion dn/dT

D_0	$1.51 \cdot 10^{-6}$
D_1	$1.56 \cdot 10^{-8}$
D_2	$-2.78 \cdot 10^{-11}$
E_0	$9.34 \cdot 10^{-7}$
E_1	$1.04 \cdot 10^{-9}$
λ_{TK} [µm]	0.25

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.874	0.714
2325	0.912	0.795
1970	0.968	0.921
1530	0.998	0.994
1060	0.999	0.998
700	0.999	0.998
660	0.999	0.997
620	0.999	0.998
580	0.999	0.998
546	0.999	0.998
500	0.999	0.997
460	0.998	0.995
436	0.998	0.994
420	0.997	0.994
405	0.997	0.992
400	0.996	0.991
390	0.995	0.988
380	0.993	0.982
370	0.988	0.971
365	0.983	0.957
350	0.927	0.828
334	0.565	0.240
320	0.080	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/32
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2301
$P_{C,s}$	0.4882
$P_{d,C}$	0.2938
$P_{e,d}$	0.2370
$P_{g,F}$	0.5828
$P_{i,h}$	0.9142
$P'_{s,t}$	0.2270
$P'_{C',s}$	0.5270
$P'_{d,C'}$	0.2443
$P'_{e,d}$	0.2338
$P'_{g,F'}$	0.5159
$P'_{i,h}$	0.9018

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

$\Delta P_{C,t}$	0.0008
$\Delta P_{C,s}$	0.0005
$\Delta P_{F,e}$	0.0000
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	0.0006

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	434
$T_{10}^{13.0}$ [°C]	430
$T_{10}^{7.6}$ [°C]	594
c_p [J/(g·K)]	0.557
λ [W/(m·K)]	0.780
ρ [g/cm^3]	3.60
E [10^3 N/mm^2]	57
µ	0.220
K [10^{-6} mm^2/N]	2.81
HK$_{0.1/20}$	420
HG	2
B	0
CR	1
FR	0
SR	1
AR	2.3
PR	1.3

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	2.4	3.9	5.5	0.3	1.6	3.2
+20/ +40	2.7	4.4	6.3	1.3	3.0	4.8
+60/ +80	3.0	4.8	6.8	1.9	3.7	5.7

Data Sheet

SCHOTT

F5
603380.347

n_d = 1.60342	ν_d = 38.03	$n_F - n_C$ = 0.015867
n_e = 1.60718	ν_e = 37.77	$n_{F'} - n_{C'}$ = 0.016078

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.56934
$n_{1970.1}$	1970.1	1.57427
$n_{1529.6}$	1529.6	1.57979
$n_{1060.0}$	1060.0	1.58636
n_t	1014.0	1.58721
n_s	852.1	1.59093
n_r	706.5	1.59616
n_C	656.3	1.59875
$n_{C'}$	643.8	1.59948
$n_{632.8}$	632.8	1.60017
n_D	589.3	1.60328
n_d	587.6	1.60342
n_e	546.1	1.60718
n_F	486.1	1.61461
$n_{F'}$	480.0	1.61556
n_g	435.8	1.62381
n_h	404.7	1.63176
n_i	365.0	1.64606
$n_{334.1}$	334.1	1.66276
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.3104463
B_2	0.19603426
B_3	0.96612977
C_1	0.00958633048
C_2	0.0457627627
C_3	115.011883

Constants of Dispersion dn/dT

D_0	$2.13 \cdot 10^{-6}$
D_1	$1.65 \cdot 10^{-8}$
D_2	$-6.98 \cdot 10^{-11}$
E_0	$1.02 \cdot 10^{-6}$
E_1	$6.56 \cdot 10^{-10}$
λ_{TK} [µm]	0.208

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.787	0.550
2325	0.842	0.650
1970	0.941	0.860
1530	0.995	0.987
1060	0.999	0.998
700	0.999	0.997
660	0.998	0.996
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.998	0.994
460	0.996	0.991
436	0.996	0.990
420	0.995	0.988
405	0.994	0.985
400	0.993	0.982
390	0.989	0.973
380	0.984	0.960
370	0.971	0.930
365	0.963	0.910
350	0.896	0.760
334	0.618	0.300
320	0.080	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	35/32
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2346
$P_{C,s}$	0.4925
$P_{d,C}$	0.2946
$P_{e,d}$	0.2371
$P_{g,F}$	0.5795
$P_{i,h}$	0.9015
$P'_{s,t}$	0.2315
$P'_{C',s}$	0.5317
$P'_{d,C'}$	0.2451
$P'_{e,d}$	0.2340
$P'_{g,F'}$	0.5131
$P'_{i,h}$	0.8897

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

$\Delta P_{C,t}$	0.0017
$\Delta P_{C,s}$	0.0009
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	-0.0028

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.9
T_g [°C]	438
$T_{10}^{13.0}$ [°C]	425
$T_{10}^{7.6}$ [°C]	608
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.47
E [10^3 N/mm^2]	58
μ	0.220
K [10^{-6} mm^2/N]	2.92
HK$_{0.1/20}$	450
HG	3
B	0
CR	1
FR	0
SR	1
AR	2.3
PR	2

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	4.0	5.5	0.4	1.8	3.3
+20/ +40	3.0	4.6	6.2	1.6	3.2	4.8
+60/ +80	3.1	4.8	6.5	2.0	3.7	5.4

Data Sheet

SCHOTT

N-F2
620364.265

$n_d = 1.62005$	$\nu_d = 36.43$	$n_F - n_C = 0.017020$
$n_e = 1.62408$	$\nu_e = 36.16$	$n_{F'} - n_{C'} = 0.017258$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.58136
$n_{1970.1}$	1970.1	1.58744
$n_{1529.6}$	1529.6	1.59410
$n_{1060.0}$	1060.0	1.60167
n_t	1014.0	1.60261
n_s	852.1	1.60667
n_r	706.5	1.61229
n_C	656.3	1.61506
$n_{C'}$	643.8	1.61584
$n_{632.8}$	632.8	1.61658
n_D	589.3	1.61990
n_d	587.6	1.62005
n_e	546.1	1.62408
n_F	486.1	1.63208
$n_{F'}$	480.0	1.63310
n_g	435.8	1.64209
n_h	404.7	1.65087
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	1.39757037
B_2	0.159201403
B_3	1.2686543
C_1	0.00995906143
C_2	0.0546931752
C_3	119.248346

Constants of Dispersion dn/dT

D_0	$4.62 \cdot 10^{-7}$
D_1	$1.17 \cdot 10^{-8}$
D_2	$-2.35 \cdot 10^{-11}$
E_0	$7.47 \cdot 10^{-7}$
E_1	$9.81 \cdot 10^{-10}$
λ_{TK} [µm]	0.263

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.746	0.480
2325	0.837	0.640
1970	0.950	0.880
1530	0.991	0.977
1060	0.998	0.996
700	0.997	0.992
660	0.996	0.990
620	0.996	0.991
580	0.997	0.993
546	0.997	0.992
500	0.994	0.984
460	0.989	0.973
436	0.985	0.963
420	0.980	0.950
405	0.959	0.900
400	0.946	0.870
390	0.891	0.750
380	0.764	0.510
370	0.480	0.160
365	0.276	0.040
350	0.096	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/36
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2389
$P_{C,s}$	0.4925
$P_{d,C}$	0.2935
$P_{e,d}$	0.2366
$P_{g,F}$	0.5881
$P_{i,h}$	
$P'_{s,t}$	0.2356
$P'_{C',s}$	0.5312
$P'_{d,C'}$	0.2440
$P'_{e,d}$	0.2334
$P'_{g,F'}$	0.5208
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0137
$\Delta P_{C,s}$	0.0047
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0056
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.1
T_g [°C]	569
$T_{10}^{13.0}$ [°C]	567
$T_{10}^{7.6}$ [°C]	686
c_p [J/(g·K)]	0.810
λ [W/(m·K)]	1.050
ρ [g/cm^3]	2.65
E [10^3 N/mm^2]	82
μ	0.228
K [10^{-6} mm^2/N]	3.03
HK$_{0.1/20}$	600
HG	2
B	1
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	2.0	3.2	4.6	-0.1	1.0	2.3
+20/ +40	2.1	3.5	5.1	0.7	2.0	3.6
+60/ +80	2.2	3.7	5.5	1.1	2.6	4.4

Data Sheet

SCHOTT

N-BASF2
664360.315

$n_d = 1.66446$	$\nu_d = 36.00$	$n_F - n_C = 0.018457$
$n_e = 1.66883$	$\nu_e = 35.73$	$n_{F'} - n_{C'} = 0.018720$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.62552
$n_{1970.1}$	1970.1	1.63109
$n_{1529.6}$	1529.6	1.63734
$n_{1060.0}$	1060.0	1.64484
n_t	1014.0	1.64581
n_s	852.1	1.65007
n_r	706.5	1.65607
n_C	656.3	1.65905
$n_{C'}$	643.8	1.65990
$n_{632.8}$	632.8	1.66070
n_D	589.3	1.66430
n_d	587.6	1.66446
n_e	546.1	1.66883
n_F	486.1	1.67751
$n_{F'}$	480.0	1.67862
n_g	435.8	1.68838
n_h	404.7	1.69792
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	1.53652081
B_2	0.156971102
B_3	1.30196815
C_1	0.0108435729
C_2	0.0562278762
C_3	131.3397

Constants of Dispersion dn/dT

D_0	$1.89 \cdot 10^{-6}$
D_1	$1.22 \cdot 10^{-8}$
D_2	$-1.61 \cdot 10^{-11}$
E_0	$7.77 \cdot 10^{-7}$
E_1	$9.96 \cdot 10^{-10}$
λ_{TK} [µm]	0.256

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.857	0.680
2325	0.896	0.760
1970	0.971	0.930
1530	0.994	0.985
1060	0.999	0.997
700	0.996	0.990
660	0.994	0.985
620	0.994	0.985
580	0.995	0.987
546	0.994	0.985
500	0.988	0.971
460	0.980	0.951
436	0.971	0.930
420	0.954	0.890
405	0.915	0.800
400	0.891	0.750
390	0.804	0.580
380	0.634	0.320
370	0.325	0.060
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

$P_{s,t}$	0.2309
$P_{C,s}$	0.4869
$P_{d,C}$	0.2929
$P_{e,d}$	0.2367
$P_{g,F}$	0.5890
$P_{i,h}$	
$P'_{s,t}$	0.2277
$P'_{C',s}$	0.5253
$P'_{d,C'}$	0.2435
$P'_{e,d}$	0.2333
$P'_{g,F'}$	0.5214
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0021
$\Delta P_{C,s}$	0.0001
$\Delta P_{F,e}$	0.0010
$\Delta P_{g,F}$	0.0057
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.1
T_g [°C]	619
$T_{10}^{13.0}$ [°C]	622
$T_{10}^{7.6}$ [°C]	766
c_p [J/(g·K)]	0.660
λ [W/(m·K)]	0.940
ρ [g/cm^3]	3.15
E [10^3 N/mm^2]	84
µ	0.247
K [10^{-6} mm^2/N]	3.04
HK$_{0.1/20}$	580
HG	3
B	1
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	2.8	4.1	5.6	0.6	1.9	3.3
+20/ +40	2.9	4.4	6.2	1.5	3.0	4.7
+60/ +80	3.1	4.8	6.7	2.0	3.6	5.5

Data Sheet

SCHOTT

N-BASF64
704394.320

$n_d = 1.70400$	$\nu_d = 39.38$	$n_F - n_C = 0.017875$
$n_e = 1.70824$	$\nu_e = 39.12$	$n_{F'} - n_{C'} = 0.018105$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.66373
$n_{1970.1}$	1970.1	1.66988
$n_{1529.6}$	1529.6	1.67667
$n_{1060.0}$	1060.0	1.68453
n_t	1014.0	1.68551
n_s	852.1	1.68982
n_r	706.5	1.69578
n_C	656.3	1.69872
$n_{C'}$	643.8	1.69955
$n_{632.8}$	632.8	1.70033
n_D	589.3	1.70384
n_d	587.6	1.70400
n_e	546.1	1.70824
n_F	486.1	1.71659
$n_{F'}$	480.0	1.71765
n_g	435.8	1.72690
n_h	404.7	1.73581
n_i	365.0	1.75184
$n_{334.1}$	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	1.65554268
B_2	0.17131977
B_3	1.33664448
C_1	0.0104485644
C_2	0.0499394756
C_3	118.961472

Constants of Dispersion dn/dT

D_0	$1.60 \cdot 10^{-6}$
D_1	$1.02 \cdot 10^{-8}$
D_2	$-2.68 \cdot 10^{-11}$
E_0	$7.87 \cdot 10^{-7}$
E_1	$9.65 \cdot 10^{-10}$
λ_{TK} [µm]	0.229

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.727	0.450
2325	0.852	0.670
1970	0.959	0.900
1530	0.988	0.970
1060	0.994	0.985
700	0.988	0.970
660	0.982	0.955
620	0.979	0.949
580	0.979	0.949
546	0.980	0.950
500	0.976	0.940
460	0.967	0.920
436	0.959	0.900
420	0.950	0.880
405	0.933	0.840
400	0.924	0.820
390	0.891	0.750
380	0.821	0.610
370	0.672	0.370
365	0.546	0.220
350	0.090	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2408
$P_{C,s}$	0.4979
$P_{d,C}$	0.2956
$P_{e,d}$	0.2372
$P_{g,F}$	0.5769
$P_{i,h}$	0.8970
$P'_{s,t}$	0.2377
$P'_{C',s}$	0.5375
$P'_{d,C'}$	0.2459
$P'_{e,d}$	0.2342
$P'_{g,F'}$	0.5110
$P'_{i,h}$	0.8856

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

$\Delta P_{C,t}$	0.0069
$\Delta P_{C,s}$	0.0032
$\Delta P_{F,e}$	-0.0004
$\Delta P_{g,F}$	-0.0006
$\Delta P_{i,g}$	0.0012

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.7
T_g [°C]	582
$T_{10}^{13.0}$ [°C]	585
$T_{10}^{7.6}$ [°C]	712
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.20
E [10^3 N/mm^2]	105
µ	0.264
K [10^{-6} mm^2/N]	2.38
HK$_{0.1/20}$	650
HG	4
B	0
CR	1
FR	0
SR	3.2
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	2.8	4.1	5.5	0.6	1.8	3.1
+20/ +40	2.8	4.3	5.9	1.4	2.8	4.4
+60/ +80	2.9	4.5	6.3	1.8	3.4	5.1

Data Sheet

SCHOTT

LAFN7
750350.438

$n_d = 1.74950$	$\nu_d = 34.95$	$n_F - n_C = 0.021445$
$n_e = 1.75458$	$\nu_e = 34.72$	$n_{F'} - n_{C'} = 0.021735$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70211
$n_{1970.1}$	1970.1	1.70934
$n_{1529.6}$	1529.6	1.71726
$n_{1060.0}$	1060.0	1.72642
n_t	1014.0	1.72758
n_s	852.1	1.73264
n_r	706.5	1.73970
n_C	656.3	1.74319
$n_{C'}$	643.8	1.74418
$n_{632.8}$	632.8	1.74511
n_D	589.3	1.74931
n_d	587.6	1.74950
n_e	546.1	1.75458
n_F	486.1	1.76464
$n_{F'}$	480.0	1.76592
n_g	435.8	1.77713
n_h	404.7	1.78798
n_i	365.0	1.80762
$n_{334.1}$	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	1.66842615
B_2	0.298512803
B_3	1.0774376
C_1	0.0103159999
C_2	0.0469216348
C_3	82.5078509

Constants of Dispersion dn/dT

D_0	$7.27 \cdot 10^{-6}$
D_1	$1.31 \cdot 10^{-8}$
D_2	$-3.32 \cdot 10^{-11}$
E_0	$8.88 \cdot 10^{-7}$
E_1	$9.32 \cdot 10^{-10}$
λ_{TK} [µm]	0.248

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.382	0.090
2325	0.700	0.410
1970	0.937	0.850
1530	0.984	0.960
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.994
500	0.998	0.994
460	0.993	0.982
436	0.986	0.965
420	0.976	0.940
405	0.950	0.880
400	0.937	0.850
390	0.905	0.780
380	0.842	0.650
370	0.693	0.400
365	0.546	0.220
350	0.125	0.010
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/35
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2360
$P_{C,s}$	0.4921
$P_{d,C}$	0.2941
$P_{e,d}$	0.2369
$P_{g,F}$	0.5825
$P_{i,h}$	0.9160
$P'_{s,t}$	0.2329
$P'_{C',s}$	0.5311
$P'_{d,C'}$	0.2446
$P'_{e,d}$	0.2338
$P'_{g,F'}$	0.5158
$P'_{i,h}$	0.9037

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

$\Delta P_{C,t}$	0.0174
$\Delta P_{C,s}$	0.0078
$\Delta P_{F,e}$	-0.0011
$\Delta P_{g,F}$	-0.0025
$\Delta P_{i,g}$	-0.0093

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.4
T_g [°C]	500
$T_{10}^{13.0}$ [°C]	481
$T_{10}^{7.6}$ [°C]	573
c_p [J/(g·K)]	
λ [W/(m·K)]	0.770
ρ [g/cm^3]	4.38
E [10^3 N/mm^2]	80
µ	0.280
K [10^{-6} mm^2/N]	1.77
HK$_{0.1/20}$	520
HG	3
B	0
CR	3
FR	1
SR	53.3
AR	2.2
PR	4.3

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	6.0	7.8	9.7	3.7	5.4	7.2
+20/ +40	6.3	8.3	10.4	4.8	6.7	8.9
+60/ +80	6.5	8.6	10.9	5.3	7.4	9.7

Data Sheet

SCHOTT

N-LAF2
744449.430

$n_d = 1.74397$	$\nu_d = 44.85$	$n_F - n_C = 0.016588$
$n_e = 1.74791$	$\nu_e = 44.57$	$n_{F'} - n_{C'} = 0.016780$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70582
$n_{1970.1}$	1970.1	1.71169
$n_{1529.6}$	1529.6	1.71816
$n_{1060.0}$	1060.0	1.72563
n_t	1014.0	1.72656
n_s	852.1	1.73064
n_r	706.5	1.73627
n_C	656.3	1.73903
$n_{C'}$	643.8	1.73981
$n_{632.8}$	632.8	1.74054
n_D	589.3	1.74383
n_d	587.6	1.74397
n_e	546.1	1.74791
n_F	486.1	1.75562
$n_{F'}$	480.0	1.75659
n_g	435.8	1.76500
n_h	404.7	1.77298
n_i	365.0	1.78703
$n_{334.1}$	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	1.80984227
B_2	0.15729555
B_3	1.0930037
C_1	0.0101711622
C_2	0.0442431765
C_3	100.687748

Constants of Dispersion dn/dT

D_0	$-3.64 \cdot 10^{-6}$
D_1	$9.20 \cdot 10^{-9}$
D_2	$-6.00 \cdot 10^{-12}$
E_0	$6.43 \cdot 10^{-7}$
E_1	$6.11 \cdot 10^{-10}$
λ_{TK} [µm]	0.22

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.693	0.400
2325	0.862	0.690
1970	0.971	0.930
1530	0.996	0.990
1060	0.999	0.997
700	0.998	0.996
660	0.997	0.993
620	0.997	0.992
580	0.997	0.993
546	0.998	0.994
500	0.993	0.983
460	0.985	0.962
436	0.976	0.940
420	0.965	0.915
405	0.944	0.865
400	0.933	0.840
390	0.896	0.760
380	0.831	0.630
370	0.713	0.430
365	0.626	0.310
350	0.229	0.025
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2459
$P_{C,s}$	0.5057
$P_{d,C}$	0.2979
$P_{e,d}$	0.2377
$P_{g,F}$	0.5656
$P_{i,h}$	0.8470
$P'_{s,t}$	0.2431
$P'_{C',s}$	0.5464
$P'_{d,C'}$	0.2481
$P'_{e,d}$	0.2350
$P'_{g,F'}$	0.5012
$P'_{i,h}$	0.8373

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

$\Delta P_{C,t}$	-0.0061
$\Delta P_{C,s}$	-0.0017
$\Delta P_{F,e}$	-0.0004
$\Delta P_{g,F}$	-0.0027
$\Delta P_{i,g}$	-0.0202

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.1
T_g [°C]	653
$T_{10}^{13.0}$ [°C]	645
$T_{10}^{7.6}$ [°C]	742
c_p [J/(g·K)]	0.510
λ [W/(m·K)]	0.670
ρ [g/cm^3]	4.30
E [10^3 N/mm^2]	94
μ	0.288
K [10^{-6} mm^2/N]	1.42
HK$_{0.1/20}$	530
HG	6
B	1
CR	2
FR	3
SR	52.2
AR	1
PR	2.2

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	0.0	1.0	2.1	-2.3	-1.3	-0.3
+20/ +40	-0.1	1.0	2.3	-1.6	-0.5	0.7
+60/ +80	-0.1	1.2	2.5	-1.2	0.0	1.3

Data Sheet

SCHOTT

N-LAF7
749348.373

$n_d = 1.74950$	$\nu_d = 34.82$	$n_F - n_C = 0.021525$
$n_e = 1.75459$	$\nu_e = 34.56$	$n_{F'} - n_{C'} = 0.021833$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70344
$n_{1970.1}$	1970.1	1.71021
$n_{1529.6}$	1529.6	1.71772
$n_{1060.0}$	1060.0	1.72659
n_t	1014.0	1.72773
n_s	852.1	1.73272
n_r	706.5	1.73972
n_C	656.3	1.74320
$n_{C'}$	643.8	1.74419
$n_{632.8}$	632.8	1.74511
n_D	589.3	1.74931
n_d	587.6	1.74950
n_e	546.1	1.75459
n_F	486.1	1.76472
$n_{F'}$	480.0	1.76602
n_g	435.8	1.77741
n_h	404.7	1.78854
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	1.74028764
B_2	0.226710554
B_3	1.32525548
C_1	0.010792558
C_2	0.0538626639
C_3	106.268665

Constants of Dispersion dn/dT

D_0	$9.21 \cdot 10^{-7}$
D_1	$1.10 \cdot 10^{-8}$
D_2	$-1.75 \cdot 10^{-11}$
E_0	$7.67 \cdot 10^{-7}$
E_1	$1.10 \cdot 10^{-9}$
λ_{TK} [µm]	0.264

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.679	0.380
2325	0.867	0.700
1970	0.976	0.940
1530	0.996	0.990
1060	0.998	0.996
700	0.997	0.992
660	0.995	0.988
620	0.994	0.985
580	0.992	0.980
546	0.988	0.970
500	0.971	0.930
460	0.937	0.850
436	0.901	0.770
420	0.857	0.680
405	0.782	0.540
400	0.752	0.490
390	0.657	0.350
380	0.515	0.190
370	0.302	0.050
365	0.170	0.012
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	46/36
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2317
$P_{C,s}$	0.4870
$P_{d,C}$	0.2928
$P_{e,d}$	0.2366
$P_{g,F}$	0.5894
$P_{i,h}$	
$P'_{s,t}$	0.2284
$P'_{C',s}$	0.5254
$P'_{d,C'}$	0.2434
$P'_{e,d}$	0.2333
$P'_{g,F'}$	0.5218
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0085
$\Delta P_{C,s}$	0.0029
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0042
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	568
$T_{10}^{13.0}$ [°C]	563
$T_{10}^{7.6}$ [°C]	669
c_p [J/(g·K)]	0.620
λ [W/(m·K)]	0.830
ρ [g/cm^3]	3.73
E [10^3 N/mm^2]	96
µ	0.271
K [10^{-6} mm^2/N]	2.57
HK$_{0.1/20}$	530
HG	5
B	1
CR	1
FR	2
SR	51.3
AR	1.2
PR	1.2

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	5.6	0.2	1.5	3.1
+20/ +40	2.6	4.3	6.3	1.1	2.7	4.7
+60/ +80	2.7	4.6	6.8	1.6	3.4	5.6

Data Sheet

SCHOTT

N-LAF21
788475.428

$n_d = 1.78800$	$\nu_d = 47.49$	$n_F - n_C = 0.016593$
$n_e = 1.79195$	$\nu_e = 47.25$	$n_{F'} - n_{C'} = 0.016761$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.74419
$n_{1970.1}$	1970.1	1.75191
$n_{1529.6}$	1529.6	1.76014
$n_{1060.0}$	1060.0	1.76892
n_t	1014.0	1.76995
n_s	852.1	1.77434
n_r	706.5	1.78019
n_C	656.3	1.78301
$n_{C'}$	643.8	1.78380
$n_{632.8}$	632.8	1.78454
n_D	589.3	1.78785
n_d	587.6	1.78800
n_e	546.1	1.79195
n_F	486.1	1.79960
$n_{F'}$	480.0	1.80056
n_g	435.8	1.80882
n_h	404.7	1.81657
n_i	365.0	1.83002
$n_{334.1}$	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	1.87134529
B_2	0.25078301
B_3	1.22048639
C_1	0.0093332228
C_2	0.0345637762
C_3	83.2404866

Constants of Dispersion dn/dT

D_0	$3.11 \cdot 10^{-6}$
D_1	$1.13 \cdot 10^{-8}$
D_2	$-2.07 \cdot 10^{-11}$
E_0	$5.88 \cdot 10^{-7}$
E_1	$6.32 \cdot 10^{-10}$
λ_{TK} [µm]	0.199

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.455	0.140
2325	0.752	0.490
1970	0.954	0.890
1530	0.992	0.981
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.996
620	0.998	0.995
580	0.998	0.994
546	0.998	0.994
500	0.995	0.988
460	0.989	0.973
436	0.983	0.958
420	0.976	0.940
405	0.959	0.900
400	0.950	0.880
390	0.924	0.820
380	0.882	0.730
370	0.804	0.580
365	0.746	0.480
350	0.480	0.160
334	0.130	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/33
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2646
$P_{C,s}$	0.5222
$P_{d,C}$	0.3009
$P_{e,d}$	0.2380
$P_{g,F}$	0.5555
$P_{i,h}$	0.8106
$P'_{s,t}$	0.2619
$P'_{C',s}$	0.5641
$P'_{d,C'}$	0.2507
$P'_{e,d}$	0.2356
$P'_{g,F'}$	0.4927
$P'_{i,h}$	0.8025

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

$\Delta P_{C,t}$	0.0165
$\Delta P_{C,s}$	0.0086
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0084
$\Delta P_{i,g}$	-0.0481

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.1
T_g [°C]	653
$T_{10}^{13.0}$ [°C]	659
$T_{10}^{7.6}$ [°C]	729
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	0.830
ρ [g/cm^3]	4.28
E [10^3 N/mm^2]	124
μ	0.295
K [10^{-6} mm^2/N]	1.46
HK$_{0.1/20}$	730
HG	2
B	1
CR	1
FR	1
SR	51.3
AR	1
PR	1.3

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	3.8	4.8	5.8	1.4	2.4	3.3
+20/ +40	3.9	5.1	6.2	2.3	3.5	4.6
+60/ +80	4.0	5.3	6.5	2.8	4.1	5.3

Data Sheet

SCHOTT

N-LAF33
786441.436

$n_d = 1.78582$	$\nu_d = 44.05$	$n_F - n_C = 0.017839$
$n_e = 1.79007$	$\nu_e = 43.80$	$n_{F'} - n_{C'} = 0.018038$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.74262
$n_{1970.1}$	1970.1	1.74968
$n_{1529.6}$	1529.6	1.75732
$n_{1060.0}$	1060.0	1.76584
n_t	1014.0	1.76689
n_s	852.1	1.77138
n_r	706.5	1.77751
n_C	656.3	1.78049
$n_{C'}$	643.8	1.78134
$n_{632.8}$	632.8	1.78213
n_D	589.3	1.78567
n_d	587.6	1.78582
n_e	546.1	1.79007
n_F	486.1	1.79833
$n_{F'}$	480.0	1.79937
n_g	435.8	1.80837
n_h	404.7	1.81687
n_i	365.0	1.83175
$n_{334.1}$	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	1.79653417
B_2	0.311577903
B_3	1.15981863
C_1	0.00927313493
C_2	0.0358201181
C_3	87.3448712

Constants of Dispersion dn/dT

D_0	$8.17 \cdot 10^{-6}$
D_1	$1.24 \cdot 10^{-8}$
D_2	$-1.65 \cdot 10^{-11}$
E_0	$7.11 \cdot 10^{-7}$
E_1	$8.59 \cdot 10^{-10}$
λ_{TK} [µm]	0.21

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.468	0.150
2325	0.746	0.480
1970	0.941	0.860
1530	0.988	0.970
1060	0.998	0.994
700	0.998	0.994
660	0.997	0.993
620	0.997	0.992
580	0.997	0.992
546	0.997	0.992
500	0.994	0.985
460	0.987	0.967
436	0.980	0.950
420	0.973	0.933
405	0.962	0.908
400	0.957	0.895
390	0.941	0.860
380	0.910	0.790
370	0.857	0.680
365	0.815	0.600
350	0.601	0.280
334	0.246	0.030
320	0.017	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/32
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2520
$P_{C,s}$	0.5107
$P_{d,C}$	0.2988
$P_{e,d}$	0.2378
$P_{g,F}$	0.5626
$P_{i,h}$	0.8339
$P'_{s,t}$	0.2492
$P'_{C',s}$	0.5518
$P'_{d,C'}$	0.2488
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4987
$P'_{i,h}$	0.8247

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

$\Delta P_{C,t}$	0.0088
$\Delta P_{C,s}$	0.0052
$\Delta P_{F,e}$	-0.0018
$\Delta P_{g,F}$	-0.0071
$\Delta P_{i,g}$	-0.0443

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	600
$T_{10}^{13.0}$ [°C]	585
$T_{10}^{7.6}$ [°C]	673
c_p [J/(g·K)]	0.570
λ [W/(m·K)]	0.800
AT [°C]	628
ρ [g/cm^3]	4.36
E [10^3 N/mm^2]	111
µ	0.301
K [10^{-6} mm^2/N]	2.21
HK$_{0.1/20}$	730
HG	1
HG-J	
B	0
CR	1
FR	2
SR	52.2
AR	1
PR	3
SR-J	6
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	6.8	8.1	9.4	4.4	5.7	7.0
+20/ +40	7.0	8.5	10.0	5.5	6.9	8.4
+60/ +80	7.2	8.9	10.5	6.0	7.6	9.3

Data Sheet

SCHOTT

N-LAF34
773496.424

$n_d = 1.77250$	$\nu_d = 49.62$	$n_F - n_C = 0.015568$
$n_e = 1.77621$	$\nu_e = 49.38$	$n_{F'} - n_{C'} = 0.015719$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.73085
$n_{1970.1}$	1970.1	1.73824
$n_{1529.6}$	1529.6	1.74610
$n_{1060.0}$	1060.0	1.75447
n_t	1014.0	1.75546
n_s	852.1	1.75962
n_r	706.5	1.76515
n_C	656.3	1.76780
$n_{C'}$	643.8	1.76855
$n_{632.8}$	632.8	1.76924
n_D	589.3	1.77236
n_d	587.6	1.77250
n_e	546.1	1.77621
n_F	486.1	1.78337
$n_{F'}$	480.0	1.78427
n_g	435.8	1.79196
n_h	404.7	1.79915
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	1.75836958
B_2	0.313537785
B_3	1.18925231
C_1	0.00872810026
C_2	0.0293020832
C_3	85.1780644

Constants of Dispersion dn/dT

D_0	$3.89 \cdot 10^{-6}$
D_1	$1.02 \cdot 10^{-8}$
D_2	$-1.91 \cdot 10^{-11}$
E_0	$5.88 \cdot 10^{-7}$
E_1	$7.57 \cdot 10^{-10}$
λ_{TK} [µm]	0.181

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.442	0.130
2325	0.733	0.460
1970	0.946	0.870
1530	0.990	0.975
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.996	0.991
460	0.992	0.980
436	0.987	0.967
420	0.981	0.953
405	0.971	0.930
400	0.967	0.920
390	0.950	0.880
380	0.919	0.810
370	0.867	0.700
365	0.831	0.630
350	0.634	0.320
334	0.250	0.030
320	0.010	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/32
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2674
$P_{C,s}$	0.5256
$P_{d,C}$	0.3018
$P_{e,d}$	0.2382
$P_{g,F}$	0.5518
$P_{i,h}$	
$P'_{s,t}$	0.2648
$P'_{C',s}$	0.5679
$P'_{d,C'}$	0.2515
$P'_{e,d}$	0.2359
$P'_{g,F'}$	0.4895
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0126
$\Delta P_{C,s}$	0.0070
$\Delta P_{F,e}$	-0.0023
$\Delta P_{g,F}$	-0.0085
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.0
T_g [°C]	668
$T_{10}^{13.0}$ [°C]	659
$T_{10}^{7.6}$ [°C]	745
c_p [J/(g·K)]	0.800
λ [W/(m·K)]	0.560
ρ [g/cm^3]	4.24
E [10^3 N/mm^2]	123
μ	0.292
K [10^{-6} mm^2/N]	1.44
HK$_{0.1/20}$	770
HG	2
B	0
CR	1
FR	1
SR	51.3
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	4.2	5.2	6.2	1.9	2.8	3.7
+20/ +40	4.3	5.4	6.5	2.7	3.9	4.9
+60/ +80	4.4	5.6	6.8	3.2	4.4	5.5

Data Sheet

SCHOTT

N-LAF35
743494.412

$n_d = 1.74330$	$\nu_d = 49.40$	$n_F - n_C = 0.015047$
$n_e = 1.74688$	$\nu_e = 49.16$	$n_{F'} - n_{C'} = 0.015194$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	
$n_{1970.1}$	1970.1	
$n_{1529.6}$	1529.6	
$n_{1060.0}$	1060.0	1.72588
n_t	1014.0	1.72683
n_s	852.1	1.73086
n_r	706.5	1.73620
n_C	656.3	1.73876
$n_{C'}$	643.8	1.73948
$n_{632.8}$	632.8	1.74015
n_D	589.3	1.74317
n_d	587.6	1.74330
n_e	546.1	1.74688
n_F	486.1	1.75381
$n_{F'}$	480.0	1.75467
n_g	435.8	1.76212
n_h	404.7	1.76908
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	1.51697436
B_2	0.455875464
B_3	1.07469242
C_1	0.00750943203
C_2	0.0260046715
C_3	80.5945159

Constants of Dispersion dn/dT

D_0	$8.98 \cdot 10^{-6}$
D_1	$1.26 \cdot 10^{-8}$
D_2	$-1.23 \cdot 10^{-11}$
E_0	$6.24 \cdot 10^{-7}$
E_1	$6.86 \cdot 10^{-10}$
λ_{TK} [µm]	0.194

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.713	0.430
1970	0.937	0.850
1530	0.988	0.970
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.996
620	0.998	0.994
580	0.998	0.994
546	0.998	0.995
500	0.997	0.992
460	0.994	0.985
436	0.990	0.976
420	0.987	0.967
405	0.980	0.950
400	0.976	0.940
390	0.966	0.920
380	0.948	0.880
370	0.918	0.810
365	0.898	0.760
350	0.788	0.550
334	0.592	0.270
320	0.348	0.200
310	0.152	0.080
300	0.026	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/30
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2674
$P_{C,s}$	0.5253
$P_{d,C}$	0.3017
$P_{e,d}$	0.2381
$P_{g,F}$	0.5523
$P_{i,h}$	
$P'_{s,t}$	0.2648
$P'_{C',s}$	0.5676
$P'_{d,C'}$	0.2514
$P'_{e,d}$	0.2358
$P'_{g,F'}$	0.4899
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0134
$\Delta P_{C,s}$	0.0072
$\Delta P_{F,e}$	-0.0022
$\Delta P_{g,F}$	-0.0084
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.4
T_g [°C]	589
$T_{10}^{13.0}$ [°C]	585
$T_{10}^{7.6}$ [°C]	669
c_p [J/(g·K)]	0.570
λ [W/(m·K)]	0.800
ρ [g/cm^3]	4.12
E [10^3 N/mm^2]	109
μ	0.301
K [10^{-6} mm^2/N]	2.29
HK$_{0.1/20}$	660
HG	2
B	0
CR	2
FR	1
SR	52.3
AR	1
PR	3.3

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	7.0	8.1	9.2	4.7	5.7	6.7
+20/ +40	7.1	8.4	9.6	5.6	6.9	8.0
+60/ +80	7.3	8.7	10.0	6.2	7.5	8.8

Data Sheet

SCHOTT

N-LAF36
800424.443

$n_d = 1.79952$	$\nu_d = 42.37$	$n_F - n_C = 0.018871$
$n_e = 1.80400$	$\nu_e = 42.12$	$n_{F'} - n_{C'} = 0.019090$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.75555
$n_{1970.1}$	1970.1	1.76246
$n_{1529.6}$	1529.6	1.77001
$n_{1060.0}$	1060.0	1.77862
n_t	1014.0	1.77969
n_s	852.1	1.78435
n_r	706.5	1.79076
n_C	656.3	1.79390
$n_{C'}$	643.8	1.79478
$n_{632.8}$	632.8	1.79561
n_D	589.3	1.79935
n_d	587.6	1.79952
n_e	546.1	1.80400
n_F	486.1	1.81277
$n_{F'}$	480.0	1.81387
n_g	435.8	1.82345
n_h	404.7	1.83252
n_i	365.0	1.84848
$n_{334.1}$	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	1.85744228
B_2	0.294098729
B_3	1.16615417
C_1	0.00982397191
C_2	0.0384309138
C_3	89.3984634

Constants of Dispersion dn/dT

D_0	$8.72 \cdot 10^{-6}$
D_1	$1.12 \cdot 10^{-8}$
D_2	$-1.38 \cdot 10^{-11}$
E_0	$7.81 \cdot 10^{-7}$
E_1	$9.48 \cdot 10^{-10}$
λ_{TK} [µm]	0.212

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.480	0.160
2325	0.770	0.520
1970	0.950	0.880
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.994
660	0.998	0.994
620	0.997	0.992
580	0.997	0.992
546	0.996	0.990
500	0.992	0.980
460	0.985	0.962
436	0.976	0.940
420	0.967	0.920
405	0.954	0.890
400	0.946	0.870
390	0.919	0.810
380	0.872	0.710
370	0.793	0.560
365	0.733	0.460
350	0.455	0.140
334	0.068	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/33
(*= λ_{70}/λ_5)	

Remarks

will become inquiry glass as of Jan 2014, not recommended for new design

Relative Partial Dispersion

$P_{s,t}$	0.2467
$P_{C,s}$	0.5059
$P_{d,C}$	0.2979
$P_{e,d}$	0.2377
$P_{g,F}$	0.5659
$P_{i,h}$	0.8455
$P'_{s,t}$	0.2439
$P'_{C',s}$	0.5465
$P'_{d,C'}$	0.2480
$P'_{e,d}$	0.2349
$P'_{g,F'}$	0.5014
$P'_{i,h}$	0.8358

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

$\Delta P_{C,t}$	0.0067
$\Delta P_{C,s}$	0.0043
$\Delta P_{F,e}$	-0.0016
$\Delta P_{g,F}$	-0.0067
$\Delta P_{i,g}$	-0.0424

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.8
T_g [°C]	579
$T_{10}^{13.0}$ [°C]	582
$T_{10}^{7.6}$ [°C]	670
c_p [J/(g·K)]	0.540
λ [W/(m·K)]	0.790
ρ [g/cm^3]	4.43
E [10^3 N/mm^2]	110
μ	0.305
K [10^{-6} mm^2/N]	2.25
HK$_{0.1/20}$	680
HG	1
B	0
CR	1
FR	2
SR	52.3
AR	1
PR	3.3

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	7.3	8.8	10.3	4.9	6.4	7.8
+20/ +40	7.4	9.1	10.8	5.9	7.6	9.2
+60/ +80	7.6	9.5	11.3	6.4	8.2	10.1

Data Sheet

SCHOTT

N-LASF9
850322.441

n_d = 1.85025	ν_d = 32.17	$n_F - n_C$ = 0.026430
n_e = 1.85650	ν_e = 31.93	$n_{F'} - n_{C'}$ = 0.026827

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.80058
$n_{1970.1}$	1970.1	1.80659
$n_{1529.6}$	1529.6	1.81364
$n_{1060.0}$	1060.0	1.82293
n_t	1014.0	1.82420
n_s	852.1	1.82997
n_r	706.5	1.83834
n_C	656.3	1.84255
$n_{C'}$	643.8	1.84376
$n_{632.8}$	632.8	1.84489
n_D	589.3	1.85002
n_d	587.6	1.85025
n_e	546.1	1.85650
n_F	486.1	1.86898
$n_{F'}$	480.0	1.87058
n_g	435.8	1.88467
n_h	404.7	1.89845
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	2.00029547
B_2	0.298926886
B_3	1.80691843
C_1	0.0121426017
C_2	0.0538736236
C_3	156.530829

Constants of Dispersion dn/dT

D_0	$1.05 \cdot 10^{-6}$
D_1	$1.02 \cdot 10^{-8}$
D_2	$-2.38 \cdot 10^{-11}$
E_0	$9.19 \cdot 10^{-7}$
E_1	$1.18 \cdot 10^{-9}$
λ_{TK} [µm]	0.257

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.857	0.680
2325	0.915	0.800
1970	0.978	0.947
1530	0.996	0.991
1060	0.998	0.996
700	0.995	0.987
660	0.994	0.984
620	0.993	0.982
580	0.992	0.981
546	0.990	0.975
500	0.980	0.950
460	0.959	0.900
436	0.933	0.840
420	0.901	0.770
405	0.831	0.630
400	0.799	0.570
390	0.693	0.400
380	0.525	0.200
370	0.270	0.040
365	0.137	
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

$P_{s,t}$	0.2181
$P_{C,s}$	0.4762
$P_{d,C}$	0.2912
$P_{e,d}$	0.2366
$P_{g,F}$	0.5934
$P_{i,h}$	
$P'_{s,t}$	0.2149
$P'_{C',s}$	0.5140
$P'_{d,C'}$	0.2420
$P'_{e,d}$	0.2330
$P'_{g,F'}$	0.5250
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0032
$\Delta P_{C,s}$	-0.0016
$\Delta P_{F,e}$	0.0008
$\Delta P_{g,F}$	0.0037
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	683
$T_{10}^{13.0}$ [°C]	700
$T_{10}^{7.6}$ [°C]	817
c_p [J/(g·K)]	0.530
λ [W/(m·K)]	0.790
ρ [g/cm^3]	4.41
E [10^3 N/mm^2]	109
μ	0.288
K [10^{-6} mm^2/N]	1.72
HK$_{0.1/20}$	515
HG	4
B	1
CR	1
FR	0
SR	2
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	2.8	4.7	6.9	0.4	2.2	4.3
+20/ +40	2.9	5.1	7.7	1.4	3.5	6.0
+60/ +80	3.1	5.5	8.2	1.8	4.2	6.9

Data Sheet

SCHOTT

N-LASF31A
883408.551

$n_d = 1.88300$	$\nu_d = 40.76$	$n_F - n_C = 0.021663$
$n_e = 1.88815$	$\nu_e = 40.52$	$n_{F'} - n_{C'} = 0.021921$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.83590
$n_{1970.1}$	1970.1	1.84267
$n_{1529.6}$	1529.6	1.85026
$n_{1060.0}$	1060.0	1.85937
n_t	1014.0	1.86054
n_s	852.1	1.86572
n_r	706.5	1.87298
n_C	656.3	1.87656
$n_{C'}$	643.8	1.87757
$n_{632.8}$	632.8	1.87853
n_D	589.3	1.88281
n_d	587.6	1.88300
n_e	546.1	1.88815
n_F	486.1	1.89822
$n_{F'}$	480.0	1.89950
n_g	435.8	1.91050
n_h	404.7	1.92093
n_i	365.0	1.93920
$n_{334.1}$	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	1.96485075
B_2	0.475231259
B_3	1.48360109
C_1	0.00982060155
C_2	0.0344713438
C_3	110.739863

Constants of Dispersion dn/dT

D_0	$1.67 \cdot 10^{-6}$
D_1	$8.90 \cdot 10^{-9}$
D_2	$-8.73 \cdot 10^{-12}$
E_0	$7.47 \cdot 10^{-7}$
E_1	$7.46 \cdot 10^{-10}$
λ_{TK} [µm]	0.207

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.634	0.320
2325	0.826	0.620
1970	0.959	0.900
1530	0.992	0.980
1060	0.996	0.991
700	0.996	0.989
660	0.995	0.988
620	0.994	0.986
580	0.995	0.988
546	0.994	0.986
500	0.988	0.970
460	0.974	0.937
436	0.963	0.910
420	0.950	0.880
405	0.933	0.840
400	0.924	0.820
390	0.891	0.750
380	0.842	0.650
370	0.764	0.510
365	0.707	0.420
350	0.468	0.150
334	0.123	
320	0.001	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/33*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2391
$P_{C,s}$	0.5004
$P_{d,C}$	0.2972
$P_{e,d}$	0.2377
$P_{g,F}$	0.5667
$P_{i,h}$	0.8436
$P'_{s,t}$	0.2363
$P'_{C',s}$	0.5407
$P'_{d,C'}$	0.2475
$P'_{e,d}$	0.2349
$P'_{g,F'}$	0.5021
$P'_{i,h}$	0.8337

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

$\Delta P_{C,t}$	0.0012
$\Delta P_{C,s}$	0.0025
$\Delta P_{F,e}$	-0.0019
$\Delta P_{g,F}$	-0.0085
$\Delta P_{i,g}$	-0.0575

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.7
T_g [°C]	719
$T_{10}^{13.0}$ [°C]	720
$T_{10}^{7.6}$ [°C]	830
c_p [J/(g·K)]	0.440
λ [W/(m·K)]	0.790
ρ [g/cm^3]	5.51
E [10^3 N/mm^2]	126
μ	0.301
K [10^{-6} mm^2/N]	1.18
HK$_{0.1/20}$	650
HG	2
B	1
CR	1
FR	0
SR	2.3
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	3.4	4.8	6.3	0.9	2.3	3.7
+20/ +40	3.3	4.9	6.6	1.7	3.3	4.9
+60/ +80	3.4	5.2	6.9	2.2	3.9	5.6

Data Sheet

SCHOTT

N-LASF40
834373.443

$n_d = 1.83404$	$\nu_d = 37.30$	$n_F - n_C = 0.022363$
$n_e = 1.83935$	$\nu_e = 37.04$	$n_{F'} - n_{C'} = 0.022658$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.78600
$n_{1970.1}$	1970.1	1.79298
$n_{1529.6}$	1529.6	1.80074
$n_{1060.0}$	1060.0	1.80999
n_t	1014.0	1.81118
n_s	852.1	1.81643
n_r	706.5	1.82380
n_C	656.3	1.82745
$n_{C'}$	643.8	1.82849
$n_{632.8}$	632.8	1.82946
n_D	589.3	1.83385
n_d	587.6	1.83404
n_e	546.1	1.83935
n_F	486.1	1.84981
$n_{F'}$	480.0	1.85114
n_g	435.8	1.86275
n_h	404.7	1.87393
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	1.98550331
B_2	0.274057042
B_3	1.28945661
C_1	0.010958331
C_2	0.0474551603
C_3	96.9085286

Constants of Dispersion dn/dT

D_0	$8.10 \cdot 10^{-6}$
D_1	$1.25 \cdot 10^{-8}$
D_2	$-1.73 \cdot 10^{-11}$
E_0	$8.27 \cdot 10^{-7}$
E_1	$1.08 \cdot 10^{-9}$
λ_{TK} [µm]	0.238

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.565	0.240
2325	0.810	0.590
1970	0.963	0.910
1530	0.993	0.982
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.994
620	0.997	0.993
580	0.997	0.992
546	0.995	0.988
500	0.987	0.969
460	0.973	0.933
436	0.954	0.890
420	0.937	0.850
405	0.905	0.780
400	0.891	0.750
390	0.842	0.650
380	0.764	0.510
370	0.601	0.280
365	0.468	0.150
350	0.044	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/35*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2346
$P_{C,s}$	0.4929
$P_{d,C}$	0.2948
$P_{e,d}$	0.2371
$P_{g,F}$	0.5786
$P_{i,h}$	
$P'_{s,t}$	0.2315
$P'_{C',s}$	0.5321
$P'_{d,C'}$	0.2453
$P'_{e,d}$	0.2340
$P'_{g,F'}$	0.5124
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0055
$\Delta P_{C,s}$	0.0030
$\Delta P_{F,e}$	-0.0007
$\Delta P_{g,F}$	-0.0024
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.9
T_g [°C]	590
$T_{10}^{13.0}$ [°C]	591
$T_{10}^{7.6}$ [°C]	677
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	0.810
ρ [g/cm^3]	4.43
E [10^3 N/mm^2]	111
μ	0.304
K [10^{-6} mm^2/N]	2.19
HK$_{0.1/20}$	580
HG	1
B	0
CR	1
FR	1
SR	51.2
AR	1
PR	1.3

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	7.1	8.8	10.6	4.6	6.3	8.0
+20/ +40	7.3	9.3	11.4	5.7	7.7	9.8
+60/ +80	7.6	9.7	12.0	6.3	8.5	10.8

Data Sheet

SCHOTT

N-LASF41
835431.485

$n_d = 1.83501$	$\nu_d = 43.13$	$n_F - n_C = 0.019361$
$n_e = 1.83961$	$\nu_e = 42.88$	$n_{F'} - n_{C'} = 0.019578$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.78859
$n_{1970.1}$	1970.1	1.79608
$n_{1529.6}$	1529.6	1.80423
$n_{1060.0}$	1060.0	1.81338
n_t	1014.0	1.81450
n_s	852.1	1.81936
n_r	706.5	1.82599
n_C	656.3	1.82923
$n_{C'}$	643.8	1.83014
$n_{632.8}$	632.8	1.83100
n_D	589.3	1.83484
n_d	587.6	1.83501
n_e	546.1	1.83961
n_F	486.1	1.84859
$n_{F'}$	480.0	1.84972
n_g	435.8	1.85949
n_h	404.7	1.86872
n_i	365.0	1.88486
$n_{334.1}$	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	1.86348331
B_2	0.413307255
B_3	1.35784815
C_1	0.00910368219
C_2	0.0339247268
C_3	93.3580595

Constants of Dispersion dn/dT

D_0	$3.03 \cdot 10^{-6}$
D_1	$1.04 \cdot 10^{-8}$
D_2	$-1.30 \cdot 10^{-11}$
E_0	$6.62 \cdot 10^{-7}$
E_1	$7.82 \cdot 10^{-10}$
λ_{TK} [µm]	0.209

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.480	0.160
2325	0.764	0.510
1970	0.950	0.880
1530	0.993	0.983
1060	0.998	0.995
700	0.998	0.995
660	0.998	0.994
620	0.997	0.993
580	0.998	0.994
546	0.997	0.993
500	0.994	0.984
460	0.985	0.962
436	0.976	0.940
420	0.967	0.920
405	0.954	0.890
400	0.948	0.876
390	0.928	0.830
380	0.891	0.750
370	0.831	0.630
365	0.787	0.550
350	0.592	0.270
334	0.292	0.040
320	0.040	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/32*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2508
$P_{C,s}$	0.5098
$P_{d,C}$	0.2986
$P_{e,d}$	0.2378
$P_{g,F}$	0.5629
$P_{i,h}$	0.8338
$P'_{s,t}$	0.2480
$P'_{C',s}$	0.5507
$P'_{d,C'}$	0.2487
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4989
$P'_{i,h}$	0.8245

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

$\Delta P_{C,t}$	0.0110
$\Delta P_{C,s}$	0.0063
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0083
$\Delta P_{i,g}$	-0.0520

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	651
$T_{10}^{13.0}$ [°C]	658
$T_{10}^{7.6}$ [°C]	739
c_p [J/(g·K)]	0.490
λ [W/(m·K)]	0.790
ρ [g/cm^3]	4.85
E [10^3 N/mm^2]	124
μ	0.294
K [10^{-6} mm^2/N]	1.57
HK$_{0.1/20}$	760
HG	2
B	0
CR	1
FR	1
SR	4
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	4.0	5.2	6.4	1.5	2.7	3.9
+20/ +40	4.0	5.4	6.8	2.4	3.8	5.2
+60/ +80	4.2	5.7	7.2	2.9	4.5	6.0

Data Sheet

SCHOTT

N-LASF43
806406.426

$n_d = 1.80610$	$\nu_d = 40.61$	$n_F - n_C = 0.019850$
$n_e = 1.81081$	$\nu_e = 40.36$	$n_{F'} - n_{C'} = 0.020089$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.75901
$n_{1970.1}$	1970.1	1.76662
$n_{1529.6}$	1529.6	1.77488
$n_{1060.0}$	1060.0	1.78413
n_t	1014.0	1.78527
n_s	852.1	1.79018
n_r	706.5	1.79691
n_C	656.3	1.80020
$n_{C'}$	643.8	1.80113
$n_{632.8}$	632.8	1.80200
n_D	589.3	1.80593
n_d	587.6	1.80610
n_e	546.1	1.81081
n_F	486.1	1.82005
$n_{F'}$	480.0	1.82122
n_g	435.8	1.83137
n_h	404.7	1.84106
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	1.93502827
B_2	0.23662935
B_3	1.26291344
C_1	0.0104001413
C_2	0.0447505292
C_3	87.437569

Constants of Dispersion dn/dT

D_0	$4.77 \cdot 10^{-6}$
D_1	$1.14 \cdot 10^{-8}$
D_2	$-2.68 \cdot 10^{-12}$
E_0	$6.62 \cdot 10^{-7}$
E_1	$8.84 \cdot 10^{-10}$
λ_{TK} [µm]	0.234

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.398	0.100
2325	0.713	0.430
1970	0.937	0.850
1530	0.984	0.960
1060	0.998	0.994
700	0.998	0.995
660	0.998	0.995
620	0.997	0.993
580	0.996	0.991
546	0.995	0.988
500	0.990	0.975
460	0.980	0.950
436	0.967	0.920
420	0.954	0.890
405	0.933	0.840
400	0.919	0.810
390	0.882	0.730
380	0.821	0.610
370	0.707	0.420
365	0.618	0.300
350	0.221	0.020
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	42/34
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2476
$P_{C,s}$	0.5049
$P_{d,C}$	0.2972
$P_{e,d}$	0.2374
$P_{g,F}$	0.5703
$P_{i,h}$	
$P'_{s,t}$	0.2446
$P'_{C',s}$	0.5452
$P'_{d,C'}$	0.2473
$P'_{e,d}$	0.2346
$P'_{g,F'}$	0.5053
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0149
$\Delta P_{C,s}$	0.0073
$\Delta P_{F,e}$	-0.0016
$\Delta P_{g,F}$	-0.0052
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.7
T_g [°C]	614
$T_{10}^{13.0}$ [°C]	615
$T_{10}^{7.6}$ [°C]	699
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	0.810
ρ [g/cm^3]	4.26
E [10^3 N/mm^2]	114
μ	0.290
K [10^{-6} mm^2/N]	1.92
HK$_{0.1/20}$	720
HG	2
B	1
CR	1
FR	1
SR	51.3
AR	1
PR	2

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	4.9	6.2	7.6	2.5	3.8	5.0
+20/ +40	5.0	6.5	8.1	3.4	4.9	6.4
+60/ +80	5.2	6.9	8.6	4.0	5.6	7.4

Data Sheet

SCHOTT

N-LASF44
804465.444

$n_d = 1.80420$	$\nu_d = 46.50$	$n_F - n_C = 0.017294$
$n_e = 1.80832$	$\nu_e = 46.25$	$n_{F'} - n_{C'} = 0.017476$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.76070
$n_{1970.1}$	1970.1	1.76801
$n_{1529.6}$	1529.6	1.77590
$n_{1060.0}$	1060.0	1.78455
n_t	1014.0	1.78560
n_s	852.1	1.79006
n_r	706.5	1.79609
n_C	656.3	1.79901
$n_{C'}$	643.8	1.79983
$n_{632.8}$	632.8	1.80060
n_D	589.3	1.80405
n_d	587.6	1.80420
n_e	546.1	1.80832
n_F	486.1	1.81630
$n_{F'}$	480.0	1.81731
n_g	435.8	1.82594
n_h	404.7	1.83405
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	1.78897105
B_2	0.38675867
B_3	1.30506243
C_1	0.00872506277
C_2	0.0308085023
C_3	92.7743824

Constants of Dispersion dn/dT

D_0	$3.32 \cdot 10^{-6}$
D_1	$1.12 \cdot 10^{-8}$
D_2	$-8.52 \cdot 10^{-12}$
E_0	$5.88 \cdot 10^{-7}$
E_1	$7.13 \cdot 10^{-10}$
λ_{TK} [µm]	0.209

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.468	0.150
2325	0.739	0.470
1970	0.946	0.870
1530	0.990	0.975
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.996	0.989
460	0.991	0.977
436	0.986	0.965
420	0.980	0.950
405	0.967	0.920
400	0.963	0.910
390	0.946	0.870
380	0.911	0.793
370	0.860	0.685
365	0.823	0.615
350	0.658	0.351
334	0.378	0.088
320	0.152	
310	0.068	
300	0.029	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/31
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2582
$P_{C,s}$	0.5171
$P_{d,C}$	0.3002
$P_{e,d}$	0.2380
$P_{g,F}$	0.5572
$P_{i,h}$	
$P'_{s,t}$	0.2555
$P'_{C',s}$	0.5588
$P'_{d,C'}$	0.2501
$P'_{e,d}$	0.2355
$P'_{g,F'}$	0.4941
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0098
$\Delta P_{C,s}$	0.0058
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0084
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	655
$T_{10}^{13.0}$ [°C]	659
$T_{10}^{7.6}$ [°C]	742
c_p [J/(g·K)]	0.530
λ [W/(m·K)]	0.820
ρ [g/cm^3]	4.44
E [10^3 N/mm^2]	124
µ	0.293
K [10^{-6} mm^2/N]	1.41
HK$_{0.1/20}$	770
HG	2
B	0
CR	1
FR	1
SR	4
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	4.0	5.1	6.1	1.6	2.6	3.6
+20/ +40	4.0	5.3	6.5	2.5	3.7	4.9
+60/ +80	4.2	5.6	6.9	3.0	4.4	5.7

Data Sheet

SCHOTT

N-LASF45
801350.363

$n_d = 1.80107$	$\nu_d = 34.97$	$n_F - n_C = 0.022905$
$n_e = 1.80650$	$\nu_e = 34.72$	$n_{F'} - n_{C'} = 0.023227$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.75487
$n_{1970.1}$	1970.1	1.76104
$n_{1529.6}$	1529.6	1.76809
$n_{1060.0}$	1060.0	1.77689
n_t	1014.0	1.77805
n_s	852.1	1.78325
n_r	706.5	1.79066
n_C	656.3	1.79436
$n_{C'}$	643.8	1.79541
$n_{632.8}$	632.8	1.79640
n_D	589.3	1.80087
n_d	587.6	1.80107
n_e	546.1	1.80650
n_F	486.1	1.81726
$n_{F'}$	480.0	1.81864
n_g	435.8	1.83068
n_h	404.7	1.84237
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	1.87140198
B_2	0.267777879
B_3	1.73030008
C_1	0.011217192
C_2	0.0505134972
C_3	147.106505

Constants of Dispersion dn/dT

D_0	$2.78 \cdot 10^{-6}$
D_1	$8.73 \cdot 10^{-9}$
D_2	$-2.65 \cdot 10^{-11}$
E_0	$8.24 \cdot 10^{-7}$
E_1	$1.15 \cdot 10^{-9}$
λ_{TK} [µm]	0.255

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.852	0.670
2325	0.928	0.830
1970	0.985	0.962
1530	0.997	0.992
1060	0.997	0.993
700	0.997	0.992
660	0.995	0.987
620	0.994	0.984
580	0.994	0.986
546	0.993	0.982
500	0.983	0.958
460	0.965	0.915
436	0.946	0.870
420	0.924	0.820
405	0.877	0.720
400	0.857	0.680
390	0.787	0.550
380	0.672	0.370
370	0.576	0.150
365	0.336	0.060
350	0.012	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	44/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2268
$P_{C,s}$	0.4849
$P_{d,C}$	0.2930
$P_{e,d}$	0.2368
$P_{g,F}$	0.5859
$P_{i,h}$	
$P'_{s,t}$	0.2237
$P'_{C',s}$	0.5235
$P'_{d,C'}$	0.2437
$P'_{e,d}$	0.2336
$P'_{g,F'}$	0.5186
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0009
$\Delta P_{C,s}$	0.0005
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0009
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.6
T_g [°C]	647
$T_{10}^{13.0}$ [°C]	652
$T_{10}^{7.6}$ [°C]	773
c_p [J/(g·K)]	0.660
λ [W/(m·K)]	1.020
ρ [g/cm^3]	3.63
E [10^3 N/mm^2]	116
µ	0.281
K [10^{-6} mm^2/N]	2.01
HK$_{0.1/20}$	630
HG	3
B	0
CR	1
FR	0
SR	3.2
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	3.8	5.4	7.3	1.4	3.0	4.7
+20/ +40	3.8	5.7	7.9	2.3	4.1	6.2
+60/ +80	3.8	5.9	8.3	2.6	4.7	7.0

Data Sheet

SCHOTT

N-LASF46A
904313.445

$n_d = 1.90366$	$\nu_d = 31.32$	$n_F - n_C = 0.028853$
$n_e = 1.91048$	$\nu_e = 31.09$	$n_{F'} - n_{C'} = 0.029287$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.84576
$n_{1970.1}$	1970.1	1.85364
$n_{1529.6}$	1529.6	1.86255
$n_{1060.0}$	1060.0	1.87353
n_t	1014.0	1.87498
n_s	852.1	1.88143
n_r	706.5	1.89064
n_C	656.3	1.89526
$n_{C'}$	643.8	1.89657
$n_{632.8}$	632.8	1.89781
n_D	589.3	1.90341
n_d	587.6	1.90366
n_e	546.1	1.91048
n_F	486.1	1.92411
$n_{F'}$	480.0	1.92586
n_g	435.8	1.94129
n_h	404.7	1.95645
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	2.16701566
B_2	0.319812761
B_3	1.66004486
C_1	0.0123595524
C_2	0.0560610282
C_3	107.047718

Constants of Dispersion dn/dT

D_0	$3.53 \cdot 10^{-6}$
D_1	$1.24 \cdot 10^{-8}$
D_2	$-1.87 \cdot 10^{-11}$
E_0	$8.39 \cdot 10^{-7}$
E_1	$1.04 \cdot 10^{-9}$
λ_{TK} [µm]	0.275

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.556	0.230
2325	0.793	0.560
1970	0.954	0.890
1530	0.991	0.977
1060	0.999	0.997
700	0.996	0.989
660	0.994	0.985
620	0.993	0.983
580	0.993	0.982
546	0.991	0.978
500	0.980	0.950
460	0.959	0.900
436	0.937	0.850
420	0.905	0.780
405	0.847	0.660
400	0.815	0.600
390	0.707	0.420
380	0.504	0.180
370	0.181	0.014
365	0.050	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	41/37*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2236
$P_{C,s}$	0.4793
$P_{d,C}$	0.2912
$P_{e,d}$	0.2364
$P_{g,F}$	0.5953
$P_{i,h}$	
$P'_{s,t}$	0.2203
$P'_{C',s}$	0.5170
$P'_{d,C'}$	0.2420
$P'_{e,d}$	0.2329
$P'_{g,F'}$	0.5268
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0094
$\Delta P_{C,s}$	0.0034
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0042
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.2
T_g [°C]	638
$T_{10}^{13.0}$ [°C]	639
$T_{10}^{7.6}$ [°C]	733
c_p [J/(g·K)]	0.540
λ [W/(m·K)]	0.910
ρ [g/cm^3]	4.45
E [10^3 N/mm^2]	124
μ	0.298
K [10^{-6} mm^2/N]	1.64
HK$_{0.1/20}$	666
HG	1
B	0
CR	1
FR	0
SR	3
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	4.4	6.4	8.8	1.9	3.8	6.1
+20/ +40	4.7	7.0	9.8	3.1	5.3	8.1
+60/ +80	5.0	7.4	10.5	3.7	6.1	9.2

Data Sheet

SCHOTT

P-LASF47
806409.454

$n_d = 1.80610$	$\nu_d = 40.90$	$n_F - n_C = 0.019709$
$n_e = 1.81078$	$\nu_e = 40.66$	$n_{F'} - n_{C'} = 0.019941$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.76040
$n_{1970.1}$	1970.1	1.76755
$n_{1529.6}$	1529.6	1.77538
$n_{1060.0}$	1060.0	1.78432
n_t	1014.0	1.78544
n_s	852.1	1.79028
n_r	706.5	1.79696
n_C	656.3	1.80023
$n_{C'}$	643.8	1.80116
$n_{632.8}$	632.8	1.80203
n_D	589.3	1.80593
n_d	587.6	1.80610
n_e	546.1	1.81078
n_F	486.1	1.81994
$n_{F'}$	480.0	1.82110
n_g	435.8	1.83112
n_h	404.7	1.84064
n_i	365.0	1.85739
$n_{334.1}$	334.1	1.87632
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.85543101
B_2	0.315854649
B_3	1.28561839
C_1	0.0100328203
C_2	0.0387095168
C_3	94.5421507

Constants of Dispersion dn/dT

D_0	$7.87 \cdot 10^{-6}$
D_1	$1.09 \cdot 10^{-8}$
D_2	$-1.56 \cdot 10^{-11}$
E_0	$7.58 \cdot 10^{-7}$
E_1	$8.92 \cdot 10^{-10}$
λ_{TK} [µm]	0.218

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.525	0.200
2325	0.776	0.530
1970	0.950	0.880
1530	0.992	0.981
1060	0.999	0.998
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.994
546	0.998	0.994
500	0.995	0.988
460	0.990	0.975
436	0.985	0.963
420	0.980	0.950
405	0.971	0.930
400	0.967	0.920
390	0.954	0.890
380	0.928	0.830
370	0.877	0.720
365	0.842	0.650
350	0.657	0.350
334	0.250	0.030
320	0.012	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/33
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2459
$P_{C,s}$	0.5049
$P_{d,C}$	0.2976
$P_{e,d}$	0.2376
$P_{g,F}$	0.5671
$P_{i,h}$	0.8502
$P'_{s,t}$	0.2430
$P'_{C',s}$	0.5453
$P'_{d,C'}$	0.2478
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5025
$P'_{i,h}$	0.8403

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

$\Delta P_{C,t}$	0.0117
$\Delta P_{C,s}$	0.0066
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0079
$\Delta P_{i,g}$	-0.0482

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	530
$T_{10}^{13.0}$ [°C]	532
$T_{10}^{7.6}$ [°C]	627
c_p [J/(g·K)]	0.550
λ [W/(m·K)]	0.850
AT [°C]	580
ρ [g/cm^3]	4.54
E [10^3 N/mm^2]	120
µ	0.298
K [10^{-6} mm^2/N]	2.39
HK$_{0.1/20}$	620
HG	2
HG-J	70
B	1
CR	1
FR	1
SR	51.4
AR	1
PR	2.2
SR-J	3
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	6.8	8.3	9.8	4.5	5.9	7.3
+20/ +40	6.9	8.6	10.3	5.4	7.0	8.7
+60/ +80	7.1	8.9	10.8	5.9	7.7	9.5

Data Sheet

SCHOTT

P-LASF50
809405.454

$n_d = 1.80860$	$\nu_d = 40.46$	$n_F - n_C = 0.019985$
$n_e = 1.81335$	$\nu_e = 40.22$	$n_{F'} - n_{C'} = 0.020223$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.76261
$n_{1970.1}$	1970.1	1.76975
$n_{1529.6}$	1529.6	1.77759
$n_{1060.0}$	1060.0	1.78657
n_t	1014.0	1.78770
n_s	852.1	1.79259
n_r	706.5	1.79934
n_C	656.3	1.80266
$n_{C'}$	643.8	1.80359
$n_{632.8}$	632.8	1.80447
n_D	589.3	1.80842
n_d	587.6	1.80860
n_e	546.1	1.81335
n_F	486.1	1.82264
$n_{F'}$	480.0	1.82382
n_g	435.8	1.83399
n_h	404.7	1.84367
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	1.84910553
B_2	0.329828674
B_3	1.30400901
C_1	0.00999234757
C_2	0.0387437988
C_3	95.8967681

Constants of Dispersion dn/dT

D_0	$8.04 \cdot 10^{-6}$
D_1	$1.20 \cdot 10^{-8}$
D_2	$-2.19 \cdot 10^{-11}$
E_0	$8.20 \cdot 10^{-7}$
E_1	$9.08 \cdot 10^{-10}$
λ_{TK} [µm]	0.209

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.525	0.200
2325	0.776	0.530
1970	0.950	0.880
1530	0.992	0.981
1060	0.999	0.998
700	0.998	0.995
660	0.997	0.993
620	0.997	0.992
580	0.997	0.992
546	0.997	0.992
500	0.995	0.987
460	0.990	0.975
436	0.985	0.963
420	0.980	0.950
405	0.971	0.930
400	0.967	0.920
390	0.954	0.890
380	0.928	0.830
370	0.877	0.720
365	0.842	0.650
350	0.657	0.350
334	0.292	0.030
320	0.032	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/32
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2448
$P_{C,s}$	0.5037
$P_{d,C}$	0.2973
$P_{e,d}$	0.2376
$P_{g,F}$	0.5680
$P_{i,h}$	
$P'_{s,t}$	0.2419
$P'_{C',s}$	0.5441
$P'_{d,C'}$	0.2475
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5032
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0116
$\Delta P_{C,s}$	0.0065
$\Delta P_{F,e}$	-0.0020
$\Delta P_{g,F}$	-0.0078
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.3
T_g [°C]	527
$T_{10}^{13.0}$ [°C]	526
$T_{10}^{7.6}$ [°C]	660
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.950
AT [°C]	571
ρ [g/cm^3]	4.54
E [10^3 N/mm^2]	119
µ	0.298
K [10^{-6} mm^2/N]	2.41
HK$_{0.1/20}$	655
HG	
HG-J	
B	1
CR	
FR	
SR	
AR	
PR	
SR-J	
WR-J	

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	6.9	8.5	10.0	4.5	6.0	7.5
+20/ +40	7.1	8.9	10.6	5.5	7.3	9.0
+60/ +80	7.3	9.2	11.1	6.1	8.0	9.9

Data Sheet

SCHOTT

P-LASF51
810409.458

$n_d = 1.81000$	$\nu_d = 40.93$	$n_F - n_C = 0.019792$
$n_e = 1.81470$	$\nu_e = 40.68$	$n_{F'} - n_{C'} = 0.020025$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.76437
$n_{1970.1}$	1970.1	1.77145
$n_{1529.6}$	1529.6	1.77923
$n_{1060.0}$	1060.0	1.78815
n_t	1014.0	1.78927
n_s	852.1	1.79413
n_r	706.5	1.80082
n_C	656.3	1.80411
$n_{C'}$	643.8	1.80504
$n_{632.8}$	632.8	1.80591
n_D	589.3	1.80983
n_d	587.6	1.81000
n_e	546.1	1.81470
n_F	486.1	1.82390
$n_{F'}$	480.0	1.82506
n_g	435.8	1.83512
n_h	404.7	1.84467
n_i	365.0	1.86148
$n_{334.1}$	334.1	1.88043
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.84568806
B_2	0.3390016
B_3	1.32418921
C_1	0.00988495571
C_2	0.0378097402
C_3	97.841543

Constants of Dispersion dn/dT

D_0	$7.79 \cdot 10^{-6}$
D_1	$1.10 \cdot 10^{-8}$
D_2	$-2.03 \cdot 10^{-11}$
E_0	$7.86 \cdot 10^{-7}$
E_1	$8.78 \cdot 10^{-10}$
λ_{TK} [µm]	0.215

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.525	0.200
2325	0.776	0.530
1970	0.950	0.880
1530	0.992	0.981
1060	0.999	0.998
700	0.998	0.995
660	0.997	0.993
620	0.997	0.992
580	0.997	0.992
546	0.997	0.992
500	0.995	0.987
460	0.990	0.975
436	0.985	0.963
420	0.980	0.950
405	0.971	0.930
400	0.967	0.920
390	0.954	0.890
380	0.928	0.830
370	0.877	0.720
365	0.842	0.650
350	0.657	0.350
334	0.250	0.030
320	0.012	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/33
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2453
$P_{C,s}$	0.5045
$P_{d,C}$	0.2976
$P_{e,d}$	0.2376
$P_{g,F}$	0.5670
$P_{i,h}$	0.8491
$P'_{s,t}$	0.2425
$P'_{C',s}$	0.5450
$P'_{d,C'}$	0.2477
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5024
$P'_{i,h}$	0.8392

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

$\Delta P_{C,t}$	0.0107
$\Delta P_{C,s}$	0.0062
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0080
$\Delta P_{i,g}$	-0.0494

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	526
$T_{10}^{13.0}$ [°C]	534
$T_{10}^{7.6}$ [°C]	629
c_p [J/(g·K)]	0.560
λ [W/(m·K)]	0.870
AT [°C]	570
ρ [g/cm^3]	4.58
E [10^3 N/mm^2]	119
µ	0.299
K [10^{-6} mm^2/N]	2.32
HK$_{0.1/20}$	722
HG	
HG-J	66
B	1
CR	1
FR	1
SR	51.3
AR	1
PR	2.2
SR-J	3
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	6.8	8.3	9.9	4.4	5.9	7.3
+20/ +40	6.9	8.7	10.4	5.4	7.1	8.8
+60/ +80	7.1	8.9	10.8	5.9	7.7	9.6

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/cm^3]	3.03
E [10^3 N/mm^2]	90
μ	0.250
K [10^{-6} mm^2/N]	2.72
HK$_{0.1/20}$	540
HG	5
B	1
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

Data Sheet

SCHOTT

N-SF2
648338.272

$n_d = 1.64769$	$\nu_d = 33.82$	$n_F - n_C = 0.019151$
$n_e = 1.65222$	$\nu_e = 33.56$	$n_{F'} - n_{C'} = 0.019435$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.60661
$n_{1970.1}$	1970.1	1.61268
$n_{1529.6}$	1529.6	1.61944
$n_{1060.0}$	1060.0	1.62738
n_t	1014.0	1.62839
n_s	852.1	1.63282
n_r	706.5	1.63902
n_C	656.3	1.64210
$n_{C'}$	643.8	1.64298
$n_{632.8}$	632.8	1.64380
n_D	589.3	1.64752
n_d	587.6	1.64769
n_e	546.1	1.65222
n_F	486.1	1.66125
$n_{F'}$	480.0	1.66241
n_g	435.8	1.67265
n_h	404.7	1.68273
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	1.47343127
B_2	0.163681849
B_3	1.36920899
C_1	0.0109019098
C_2	0.0585683687
C_3	127.404933

Constants of Dispersion dn/dT

D_0	$1.55 \cdot 10^{-6}$
D_1	$-6.39 \cdot 10^{-9}$
D_2	$3.05 \cdot 10^{-10}$
E_0	$7.31 \cdot 10^{-7}$
E_1	$1.53 \cdot 10^{-9}$
λ_{TK} [µm]	0.273

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.852	0.670
2325	0.896	0.760
1970	0.971	0.930
1530	0.994	0.984
1060	0.999	0.997
700	0.995	0.987
660	0.994	0.984
620	0.994	0.984
580	0.995	0.987
546	0.994	0.986
500	0.990	0.975
460	0.984	0.961
436	0.979	0.949
420	0.970	0.926
405	0.944	0.865
400	0.928	0.830
390	0.857	0.680
380	0.693	0.400
370	0.325	0.060
365	0.132	0.007
350	0.001	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/36
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2311
$P_{C,s}$	0.4848
$P_{d,C}$	0.2918
$P_{e,d}$	0.2364
$P_{g,F}$	0.5950
$P_{i,h}$	
$P'_{s,t}$	0.2277
$P'_{C',s}$	0.5228
$P'_{d,C'}$	0.2425
$P'_{e,d}$	0.2329
$P'_{g,F'}$	0.5267
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0106
$\Delta P_{C,s}$	0.0031
$\Delta P_{F,e}$	0.0012
$\Delta P_{g,F}$	0.0081
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.7
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.8
T_g [°C]	608
$T_{10}^{13.0}$ [°C]	607
$T_{10}^{7.6}$ [°C]	731
c_p [J/(g·K)]	0.790
λ [W/(m·K)]	1.140
ρ [g/cm^3]	2.72
E [10^3 N/mm^2]	86
μ	0.231
K [10^{-6} mm^2/N]	3.06
HK$_{0.1/20}$	539
HG	
B	1
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	4.7	6.0	7.4	2.6	3.7	5.1
+20/ +40	2.6	4.0	5.9	1.1	2.6	4.4
+60/ +80	3.2	4.9	7.0	2.1	3.8	5.9

Data Sheet

SCHOTT

N-SF4
755274.315

$n_d = 1.75513$	$\nu_d = 27.38$	$n_F - n_C = 0.027583$
$n_e = 1.76164$	$\nu_e = 27.16$	$n_{F'} - n_{C'} = 0.028044$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70434
$n_{1970.1}$	1970.1	1.71052
$n_{1529.6}$	1529.6	1.71773
$n_{1060.0}$	1060.0	1.72717
n_t	1014.0	1.72846
n_s	852.1	1.73432
n_r	706.5	1.74286
n_C	656.3	1.74719
$n_{C'}$	643.8	1.74842
$n_{632.8}$	632.8	1.74959
n_D	589.3	1.75489
n_d	587.6	1.75513
n_e	546.1	1.76164
n_F	486.1	1.77477
$n_{F'}$	480.0	1.77647
n_g	435.8	1.79158
n_h	404.7	1.80668
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	1.67780282
B_2	0.282849893
B_3	1.63539276
C_1	0.012679345
C_2	0.0602038419
C_3	145.760496

Constants of Dispersion dn/dT

D_0	$-4.88 \cdot 10^{-6}$
D_1	$6.57 \cdot 10^{-9}$
D_2	$-2.72 \cdot 10^{-11}$
E_0	$9.67 \cdot 10^{-7}$
E_1	$1.48 \cdot 10^{-9}$
λ_{TK} [µm]	0.282

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.901	0.770
2325	0.924	0.820
1970	0.976	0.940
1530	0.997	0.993
1060	0.999	0.997
700	0.995	0.988
660	0.993	0.983
620	0.993	0.983
580	0.993	0.983
546	0.990	0.976
500	0.978	0.945
460	0.959	0.900
436	0.933	0.840
420	0.896	0.760
405	0.821	0.610
400	0.787	0.550
390	0.672	0.370
380	0.455	0.140
370	0.152	
365	0.044	
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

$P_{s,t}$	0.2123
$P_{C,s}$	0.4666
$P_{d,C}$	0.2880
$P_{e,d}$	0.2358
$P_{g,F}$	0.6096
$P_{i,h}$	
$P'_{s,t}$	0.2088
$P'_{C',s}$	0.5030
$P'_{d,C'}$	0.2392
$P'_{e,d}$	0.2319
$P'_{g,F'}$	0.5390
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0040
$\Delta P_{C,s}$	-0.0002
$\Delta P_{F,e}$	0.0022
$\Delta P_{g,F}$	0.0118
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.9
T_g [°C]	570
$T_{10}^{13.0}$ [°C]	559
$T_{10}^{7.6}$ [°C]	661
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	0.950
ρ [g/cm^3]	3.15
E [10^3 N/mm^2]	90
µ	0.256
K [10^{-6} mm^2/N]	2.76
HK$_{0.1/20}$	520
HG	6
B	1
CR	1
FR	0
SR	1.3
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	-0.5	1.2	3.5	-2.9	-1.2	1.0
+20/ +40	-0.7	1.4	4.2	-2.2	-0.1	2.6
+60/ +80	-0.8	1.6	4.7	-1.9	0.4	3.5

Data Sheet

SCHOTT

N-SF5
673323.286

$n_d = 1.67271$	$\nu_d = 32.25$	$n_F - n_C = 0.020858$
$n_e = 1.67763$	$\nu_e = 32.00$	$n_{F'} - n_{C'} = 0.021177$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.62935
$n_{1970.1}$	1970.1	1.63554
$n_{1529.6}$	1529.6	1.64249
$n_{1060.0}$	1060.0	1.65080
n_t	1014.0	1.65188
n_s	852.1	1.65661
n_r	706.5	1.66330
n_C	656.3	1.66664
$n_{C'}$	643.8	1.66759
$n_{632.8}$	632.8	1.66848
n_D	589.3	1.67253
n_d	587.6	1.67271
n_e	546.1	1.67763
n_F	486.1	1.68750
$n_{F'}$	480.0	1.68876
n_g	435.8	1.69998
n_h	404.7	1.71106
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	1.52481889
B_2	0.187085527
B_3	1.42729015
C_1	0.011254756
C_2	0.0588995392
C_3	129.141675

Constants of Dispersion dn/dT

D_0	$-2.51 \cdot 10^{-7}$
D_1	$1.07 \cdot 10^{-8}$
D_2	$-2.40 \cdot 10^{-11}$
E_0	$7.85 \cdot 10^{-7}$
E_1	$1.15 \cdot 10^{-9}$
λ_{TK} [µm]	0.278

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.758	0.500
2325	0.831	0.630
1970	0.950	0.880
1530	0.990	0.975
1060	0.998	0.994
700	0.996	0.989
660	0.995	0.987
620	0.995	0.988
580	0.996	0.991
546	0.995	0.988
500	0.990	0.976
460	0.982	0.956
436	0.973	0.935
420	0.963	0.910
405	0.928	0.830
400	0.905	0.780
390	0.826	0.620
380	0.642	0.330
370	0.276	0.040
365	0.116	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/36
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2270
$P_{C,s}$	0.4807
$P_{d,C}$	0.2910
$P_{e,d}$	0.2362
$P_{g,F}$	0.5984
$P_{i,h}$	
$P'_{s,t}$	0.2236
$P'_{C',s}$	0.5184
$P'_{d,C'}$	0.2418
$P'_{e,d}$	0.2327
$P'_{g,F'}$	0.5295
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0097
$\Delta P_{C,s}$	0.0027
$\Delta P_{F,e}$	0.0014
$\Delta P_{g,F}$	0.0088
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	578
$T_{10}^{13.0}$ [°C]	576
$T_{10}^{7.6}$ [°C]	693
c_p [J/(g·K)]	0.770
λ [W/(m·K)]	1.000
ρ [g/cm^3]	2.86
E [10^3 N/mm^2]	87
µ	0.237
K [10^{-6} mm^2/N]	2.99
HK$_{0.1/20}$	620
HG	3
B	1
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	1.8	3.1	4.8	-0.5	0.8	2.5
+20/ +40	1.8	3.4	5.5	0.4	2.0	4.0
+60/ +80	1.9	3.7	6.0	0.8	2.5	4.8

Data Sheet

SCHOTT

N-SF6
805254.337

$n_d = 1.80518$	$\nu_d = 25.36$	$n_F - n_C = 0.031750$
$n_e = 1.81266$	$\nu_e = 25.16$	$n_{F'} - n_{C'} = 0.032304$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.74895
$n_{1970.1}$	1970.1	1.75541
$n_{1529.6}$	1529.6	1.76307
$n_{1060.0}$	1060.0	1.77341
n_t	1014.0	1.77486
n_s	852.1	1.78144
n_r	706.5	1.79114
n_C	656.3	1.79608
$n_{C'}$	643.8	1.79749
$n_{632.8}$	632.8	1.79883
n_D	589.3	1.80491
n_d	587.6	1.80518
n_e	546.1	1.81266
n_F	486.1	1.82783
$n_{F'}$	480.0	1.82980
n_g	435.8	1.84738
n_h	404.7	1.86506
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	1.77931763
B_2	0.338149866
B_3	2.08734474
C_1	0.0133714182
C_2	0.0617533621
C_3	174.01759

Constants of Dispersion dn/dT

D_0	$-4.93 \cdot 10^{-6}$
D_1	$7.02 \cdot 10^{-9}$
D_2	$-2.40 \cdot 10^{-11}$
E_0	$9.84 \cdot 10^{-7}$
E_1	$1.54 \cdot 10^{-9}$
λ_{TK} [µm]	0.29

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.776	0.530
2325	0.810	0.590
1970	0.941	0.860
1530	0.991	0.978
1060	0.998	0.996
700	0.993	0.983
660	0.991	0.977
620	0.991	0.978
580	0.992	0.980
546	0.989	0.972
500	0.977	0.943
460	0.961	0.905
436	0.946	0.870
420	0.919	0.810
405	0.857	0.680
400	0.821	0.610
390	0.700	0.410
380	0.480	0.160
370	0.158	0.010
365	0.040	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	45/37
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2074
$P_{C,s}$	0.4610
$P_{d,C}$	0.2867
$P_{e,d}$	0.2356
$P_{g,F}$	0.6158
$P_{i,h}$	
$P'_{s,t}$	0.2039
$P'_{C',s}$	0.4969
$P'_{d,C'}$	0.2380
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5443
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0031
$\Delta P_{C,s}$	-0.0010
$\Delta P_{F,e}$	0.0027
$\Delta P_{g,F}$	0.0146
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.3
T_g [°C]	589
$T_{10}^{13.0}$ [°C]	590
$T_{10}^{7.6}$ [°C]	683
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.960
ρ [g/cm^3]	3.37
E [10^3 N/mm^2]	93
µ	0.262
K [10^{-6} mm^2/N]	2.82
HK$_{0.1/20}$	550
HG	4
B	0
CR	1
FR	0
SR	2
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	-0.7	1.2	3.9	-3.0	-1.2	1.3
+20/ +40	-0.8	1.5	4.8	-2.3	0.0	3.1
+60/ +80	-0.8	1.8	5.4	-2.0	0.6	4.1

Data Sheet

SCHOTT

N-SF6HT
805254.337

$n_d = 1.80518$	$\nu_d = 25.36$	$n_F - n_C = 0.031750$
$n_e = 1.81266$	$\nu_e = 25.16$	$n_{F'} - n_{C'} = 0.032304$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.74895
$n_{1970.1}$	1970.1	1.75541
$n_{1529.6}$	1529.6	1.76307
$n_{1060.0}$	1060.0	1.77341
n_t	1014.0	1.77486
n_s	852.1	1.78144
n_r	706.5	1.79114
n_C	656.3	1.79608
$n_{C'}$	643.8	1.79749
$n_{632.8}$	632.8	1.79883
n_D	589.3	1.80491
n_d	587.6	1.80518
n_e	546.1	1.81266
n_F	486.1	1.82783
$n_{F'}$	480.0	1.82980
n_g	435.8	1.84738
n_h	404.7	1.86506
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	1.77931763
B_2	0.338149866
B_3	2.08734474
C_1	0.0133714182
C_2	0.0617533621
C_3	174.01759

Constants of Dispersion dn/dT

D_0	$-4.93 \cdot 10^{-6}$
D_1	$7.02 \cdot 10^{-9}$
D_2	$-2.40 \cdot 10^{-11}$
E_0	$9.84 \cdot 10^{-7}$
E_1	$1.54 \cdot 10^{-9}$
λ_{TK} [µm]	0.29

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.793	0.560
2325	0.826	0.620
1970	0.946	0.870
1530	0.992	0.980
1060	0.999	0.997
700	0.994	0.984
660	0.991	0.978
620	0.992	0.979
580	0.992	0.981
546	0.990	0.975
500	0.980	0.950
460	0.966	0.917
436	0.954	0.890
420	0.937	0.850
405	0.901	0.770
400	0.877	0.720
390	0.793	0.560
380	0.592	0.270
370	0.170	0.020
365	0.040	
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

$P_{s,t}$	0.2074
$P_{C,s}$	0.4610
$P_{d,C}$	0.2867
$P_{e,d}$	0.2356
$P_{g,F}$	0.6158
$P_{i,h}$	
$P'_{s,t}$	0.2039
$P'_{C',s}$	0.4969
$P'_{d,C'}$	0.2380
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5443
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0031
$\Delta P_{C,s}$	-0.0010
$\Delta P_{F,e}$	0.0027
$\Delta P_{g,F}$	0.0146
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.3
T_g [°C]	589
$T_{10}^{13.0}$ [°C]	590
$T_{10}^{7.6}$ [°C]	683
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.960
ρ [g/cm^3]	3.37
E [10^3 N/mm^2]	93
µ	0.262
K [10^{-6} mm^2/N]	2.82
HK$_{0.1/20}$	550
HG	4
B	0
CR	1
FR	0
SR	2
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	-0.7	1.2	3.9	-3.0	-1.2	1.3
+20/ +40	-0.8	1.5	4.8	-2.3	0.0	3.1
+60/ +80	-0.8	1.8	5.4	-2.0	0.6	4.1

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
B	1
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	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

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
B	1
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

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/cm^3]	3.22
E [10^3 N/mm^2]	92
µ	0.257
K [10^{-6} mm^2/N]	2.94
HK$_{0.1/20}$	615
HG	4
B	1
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

Data Sheet

SCHOTT

N-SF14
762265.312

$n_d = 1.76182$	$\nu_d = 26.53$	$n_F - n_C = 0.028715$
$n_e = 1.76859$	$\nu_e = 26.32$	$n_{F'} - n_{C'} = 0.029204$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70954
$n_{1970.1}$	1970.1	1.71581
$n_{1529.6}$	1529.6	1.72315
$n_{1060.0}$	1060.0	1.73284
n_t	1014.0	1.73417
n_s	852.1	1.74022
n_r	706.5	1.74907
n_C	656.3	1.75356
$n_{C'}$	643.8	1.75485
$n_{632.8}$	632.8	1.75606
n_D	589.3	1.76157
n_d	587.6	1.76182
n_e	546.1	1.76859
n_F	486.1	1.78228
$n_{F'}$	480.0	1.78405
n_g	435.8	1.79986
n_h	404.7	1.81570
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	1.69022361
B_2	0.288870052
B_3	1.7045187
C_1	0.0130512113
C_2	0.061369188
C_3	149.517689

Constants of Dispersion dn/dT

D_0	$-5.56 \cdot 10^{-6}$
D_1	$7.09 \cdot 10^{-9}$
D_2	$-1.09 \cdot 10^{-11}$
E_0	$9.85 \cdot 10^{-7}$
E_1	$1.39 \cdot 10^{-9}$
λ_{TK} [µm]	0.287

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.799	0.570
2325	0.837	0.640
1970	0.950	0.880
1530	0.992	0.980
1060	0.999	0.998
700	0.994	0.985
660	0.991	0.978
620	0.992	0.980
580	0.994	0.984
546	0.992	0.981
500	0.984	0.960
460	0.971	0.930
436	0.963	0.910
420	0.946	0.870
405	0.910	0.790
400	0.891	0.750
390	0.821	0.610
380	0.642	0.330
370	0.276	0.040
365	0.095	0.004
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

$P_{s,t}$	0.2107
$P_{C,s}$	0.4646
$P_{d,C}$	0.2875
$P_{e,d}$	0.2357
$P_{g,F}$	0.6122
$P_{i,h}$	
$P'_{s,t}$	0.2072
$P'_{C',s}$	0.5008
$P'_{d,C'}$	0.2387
$P'_{e,d}$	0.2318
$P'_{g,F'}$	0.5413
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0044
$\Delta P_{C,s}$	-0.0002
$\Delta P_{F,e}$	0.0024
$\Delta P_{g,F}$	0.0130
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	10.9
T_g [°C]	566
$T_{10}^{13.0}$ [°C]	562
$T_{10}^{7.6}$ [°C]	657
c_p [J/(g·K)]	0.750
λ [W/(m·K)]	1.000
ρ [g/cm^3]	3.12
E [10^3 N/mm^2]	88
μ	0.259
K [10^{-6} mm^2/N]	2.89
HK$_{0.1/20}$	515
HG	5
B	0
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	-0.9	0.9	3.4	-3.2	-1.5	0.9
+20/ +40	-1.1	1.1	4.1	-2.6	-0.4	2.5
+60/ +80	-1.1	1.4	4.7	-2.2	0.2	3.4

Data Sheet

SCHOTT

N-SF15
699302.292

$n_d = 1.69892$	$\nu_d = 30.20$	$n_F - n_C = 0.023142$
$n_e = 1.70438$	$\nu_e = 29.96$	$n_{F'} - n_{C'} = 0.023511$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.65267
$n_{1970.1}$	1970.1	1.65899
$n_{1529.6}$	1529.6	1.66616
$n_{1060.0}$	1060.0	1.67494
n_t	1014.0	1.67609
n_s	852.1	1.68122
n_r	706.5	1.68854
n_C	656.3	1.69222
$n_{C'}$	643.8	1.69326
$n_{632.8}$	632.8	1.69425
n_D	589.3	1.69872
n_d	587.6	1.69892
n_e	546.1	1.70438
n_F	486.1	1.71536
$n_{F'}$	480.0	1.71677
n_g	435.8	1.72933
n_h	404.7	1.74182
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	1.57055634
B_2	0.218987094
B_3	1.50824017
C_1	0.0116507014
C_2	0.0597856897
C_3	132.709339

Constants of Dispersion dn/dT

D_0	$-7.15 \cdot 10^{-7}$
D_1	$1.04 \cdot 10^{-8}$
D_2	$-2.62 \cdot 10^{-11}$
E_0	$8.56 \cdot 10^{-7}$
E_1	$1.29 \cdot 10^{-9}$
λ_{TK} [µm]	0.281

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.764	0.510
2325	0.837	0.640
1970	0.954	0.890
1530	0.990	0.976
1060	0.998	0.996
700	0.995	0.988
660	0.993	0.983
620	0.994	0.984
580	0.994	0.986
546	0.994	0.985
500	0.988	0.970
460	0.977	0.943
436	0.964	0.912
420	0.941	0.860
405	0.887	0.740
400	0.857	0.680
390	0.746	0.480
380	0.525	0.200
370	0.158	0.010
365	0.044	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	42/37
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2216
$P_{C,s}$	0.4751
$P_{d,C}$	0.2897
$P_{e,d}$	0.2360
$P_{g,F}$	0.6038
$P_{i,h}$	
$P'_{s,t}$	0.2181
$P'_{C',s}$	0.5122
$P'_{d,C'}$	0.2406
$P'_{e,d}$	0.2323
$P'_{g,F'}$	0.5341
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0085
$\Delta P_{C,s}$	0.0018
$\Delta P_{F,e}$	0.0018
$\Delta P_{g,F}$	0.0108
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.3
T_g [°C]	580
$T_{10}^{13.0}$ [°C]	578
$T_{10}^{7.6}$ [°C]	692
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	1.040
ρ [g/cm^3]	2.92
E [10^3 N/mm^2]	90
μ	0.243
K [10^{-6} mm^2/N]	3.04
HK$_{0.1/20}$	610
HG	3
B	1
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	1.6	3.1	5.0	-0.7	0.8	2.6
+20/ +40	1.6	3.4	5.8	0.2	2.0	4.3
+60/ +80	1.7	3.7	6.4	0.6	2.6	5.2

Data Sheet

SCHOTT

N-SF57
847238.353

$n_d = 1.84666$	$\nu_d = 23.78$	$n_F - n_C = 0.035604$
$n_e = 1.85504$	$\nu_e = 23.59$	$n_{F'} - n_{C'} = 0.036247$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.78502
$n_{1970.1}$	1970.1	1.79190
$n_{1529.6}$	1529.6	1.80011
$n_{1060.0}$	1060.0	1.81138
n_t	1014.0	1.81296
n_s	852.1	1.82023
n_r	706.5	1.83099
n_C	656.3	1.83650
$n_{C'}$	643.8	1.83807
$n_{632.8}$	632.8	1.83956
n_D	589.3	1.84635
n_d	587.6	1.84666
n_e	546.1	1.85504
n_F	486.1	1.87210
$n_{F'}$	480.0	1.87432
n_g	435.8	1.89423
n_h	404.7	1.91440
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	1.87543831
B_2	0.37375749
B_3	2.30001797
C_1	0.0141749518
C_2	0.0640509927
C_3	177.389795

Constants of Dispersion dn/dT

D_0	$-4.51 \cdot 10^{-6}$
D_1	$8.73 \cdot 10^{-9}$
D_2	$-1.64 \cdot 10^{-11}$
E_0	$1.07 \cdot 10^{-6}$
E_1	$1.57 \cdot 10^{-9}$
λ_{TK} [µm]	0.295

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.842	0.650
2325	0.872	0.710
1970	0.963	0.910
1530	0.994	0.985
1060	0.999	0.997
700	0.991	0.977
660	0.987	0.969
620	0.988	0.971
580	0.990	0.975
546	0.986	0.965
500	0.971	0.930
460	0.949	0.877
436	0.919	0.810
420	0.872	0.710
405	0.782	0.540
400	0.733	0.460
390	0.574	0.250
380	0.302	0.050
370	0.063	0.001
365	0.003	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	42/37*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2042
$P_{C,s}$	0.4568
$P_{d,C}$	0.2855
$P_{e,d}$	0.2353
$P_{g,F}$	0.6216
$P_{i,h}$	
$P'_{s,t}$	0.2005
$P'_{C',s}$	0.4922
$P'_{d,C'}$	0.2369
$P'_{e,d}$	0.2311
$P'_{g,F'}$	0.5493
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0032
$\Delta P_{C,s}$	-0.0015
$\Delta P_{F,e}$	0.0033
$\Delta P_{g,F}$	0.0178
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.9
T_g [°C]	629
$T_{10}^{13.0}$ [°C]	616
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	0.660
λ [W/(m·K)]	0.990
ρ [g/cm^3]	3.53
E [10^3 N/mm^2]	96
μ	0.260
K [10^{-6} mm^2/N]	2.78
HK$_{0.1/20}$	520
HG	4
B	0
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	-0.5	1.7	4.9	-2.9	-0.8	2.3
+20/ +40	-0.5	2.2	6.0	-2.1	0.6	4.3
+60/ +80	-0.4	2.6	6.9	-1.6	1.3	5.6

Data Sheet

SCHOTT

N-SF57HT
847238.353

$n_d = 1.84666$	$\nu_d = 23.78$	$n_F - n_C = 0.035604$
$n_e = 1.85504$	$\nu_e = 23.59$	$n_{F'} - n_{C'} = 0.036247$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.78502
$n_{1970.1}$	1970.1	1.79190
$n_{1529.6}$	1529.6	1.80011
$n_{1060.0}$	1060.0	1.81138
n_t	1014.0	1.81296
n_s	852.1	1.82023
n_r	706.5	1.83099
n_C	656.3	1.83650
$n_{C'}$	643.8	1.83807
$n_{632.8}$	632.8	1.83956
n_D	589.3	1.84635
n_d	587.6	1.84666
n_e	546.1	1.85504
n_F	486.1	1.87210
$n_{F'}$	480.0	1.87432
n_g	435.8	1.89423
n_h	404.7	1.91440
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	1.87543831
B_2	0.37375749
B_3	2.30001797
C_1	0.0141749518
C_2	0.0640509927
C_3	177.389795

Constants of Dispersion dn/dT

D_0	$-4.51 \cdot 10^{-6}$
D_1	$8.73 \cdot 10^{-9}$
D_2	$-1.64 \cdot 10^{-11}$
E_0	$1.07 \cdot 10^{-6}$
E_1	$1.57 \cdot 10^{-9}$
λ_{TK} [µm]	0.295

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.867	0.700
2325	0.891	0.750
1970	0.971	0.930
1530	0.995	0.988
1060	0.999	0.998
700	0.992	0.979
660	0.988	0.971
620	0.989	0.973
580	0.991	0.977
546	0.987	0.967
500	0.972	0.932
460	0.951	0.883
436	0.928	0.830
420	0.896	0.760
405	0.831	0.630
400	0.793	0.560
390	0.657	0.350
380	0.382	0.090
370	0.063	0.001
365	0.003	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	41/37*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2042
$P_{C,s}$	0.4568
$P_{d,C}$	0.2855
$P_{e,d}$	0.2353
$P_{g,F}$	0.6216
$P_{i,h}$	
$P'_{s,t}$	0.2005
$P'_{C',s}$	0.4922
$P'_{d,C'}$	0.2369
$P'_{e,d}$	0.2311
$P'_{g,F'}$	0.5493
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0032
$\Delta P_{C,s}$	-0.0015
$\Delta P_{F,e}$	0.0033
$\Delta P_{g,F}$	0.0178
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.9
T_g [°C]	629
$T_{10}^{13.0}$ [°C]	616
$T_{10}^{7.6}$ [°C]	716
c_p [J/(g·K)]	0.660
λ [W/(m·K)]	0.990
ρ [g/cm^3]	3.53
E [10^3 N/mm^2]	96
μ	0.260
K [10^{-6} mm^2/N]	2.78
HK$_{0.1/20}$	520
HG	4
B	0
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	-0.5	1.7	4.9	-2.9	-0.8	2.3
+20/ +40	-0.5	2.2	6.0	-2.1	0.6	4.3
+60/ +80	-0.4	2.6	6.9	-1.6	1.3	5.6

Data Sheet

SCHOTT

N-SF66
923209.400

$n_d = 1.92286$	$\nu_d = 20.88$	$n_F - n_C = 0.044199$
$n_e = 1.93322$	$\nu_e = 20.70$	$n_{F'} - n_{C'} = 0.045076$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.84839
$n_{1970.1}$	1970.1	1.85665
$n_{1529.6}$	1529.6	1.86650
$n_{1060.0}$	1060.0	1.87999
n_t	1014.0	1.88189
n_s	852.1	1.89064
n_r	706.5	1.90368
n_C	656.3	1.91039
$n_{C'}$	643.8	1.91232
$n_{632.8}$	632.8	1.91414
n_D	589.3	1.92248
n_d	587.6	1.92286
n_e	546.1	1.93322
n_F	486.1	1.95459
$n_{F'}$	480.0	1.95739
n_g	435.8	1.98285
n_h	404.7	
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	2.0245976
B_2	0.470187196
B_3	2.59970433
C_1	0.0147053225
C_2	0.0692998276
C_3	161.817601

Constants of Dispersion dn/dT

D_0	$-4.30 \cdot 10^{-6}$
D_1	$1.15 \cdot 10^{-8}$
D_2	$4.31 \cdot 10^{-11}$
E_0	$9.62 \cdot 10^{-7}$
E_1	$1.62 \cdot 10^{-9}$
λ_{TK} [µm]	0.322

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.793	0.560
2325	0.837	0.640
1970	0.947	0.873
1530	0.989	0.973
1060	0.996	0.991
700	0.991	0.977
660	0.987	0.968
620	0.983	0.958
580	0.976	0.940
546	0.963	0.910
500	0.928	0.830
460	0.887	0.740
436	0.831	0.630
420	0.758	0.500
405	0.592	0.270
400	0.504	0.180
390	0.250	0.020
380	0.040	
370	0.001	
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	45/39*
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.1980
$P_{C,s}$	0.4467
$P_{d,C}$	0.2822
$P_{e,d}$	0.2345
$P_{g,F}$	0.6394
$P_{i,h}$	
$P'_{s,t}$	0.1941
$P'_{C',s}$	0.4808
$P'_{d,C'}$	0.2339
$P'_{e,d}$	0.2299
$P'_{g,F'}$	0.5647
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0007
$\Delta P_{C,s}$	-0.0048
$\Delta P_{F,e}$	0.0059
$\Delta P_{g,F}$	0.0307
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.8
T_g [°C]	710
$T_{10}^{13.0}$ [°C]	711
$T_{10}^{7.6}$ [°C]	806
c_p [J/(g·K)]	0.540
λ [W/(m·K)]	0.800
ρ [g/cm^3]	4.00
E [10^3 N/mm^2]	95
µ	0.259
K [10^{-6} mm^2/N]	2.86
HK$_{0.1/20}$	440
HG	3
B	1
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	1.9	5.8	-2.9	-0.7	3.1
+20/ +40	-0.5	2.4	7.3	-2.1	0.8	5.5
+60/ +80	0.1	3.4	8.9	-1.2	2.1	7.5

Data Sheet

SCHOTT

P-SF8
689313.290

$n_d = 1.68893$	$\nu_d = 31.25$	$n_F - n_C = 0.022046$
$n_e = 1.69414$	$\nu_e = 31.01$	$n_{F'} - n_{C'} = 0.022386$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.64480
$n_{1970.1}$	1970.1	1.65079
$n_{1529.6}$	1529.6	1.65760
$n_{1060.0}$	1060.0	1.66598
n_t	1014.0	1.66708
n_s	852.1	1.67200
n_r	706.5	1.67901
n_C	656.3	1.68252
$n_{C'}$	643.8	1.68353
$n_{632.8}$	632.8	1.68447
n_D	589.3	1.68874
n_d	587.6	1.68893
n_e	546.1	1.69414
n_F	486.1	1.70457
$n_{F'}$	480.0	1.70591
n_g	435.8	1.71778
n_h	404.7	1.72950
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	1.55370411
B_2	0.206332561
B_3	1.39708831
C_1	0.011658267
C_2	0.0582087757
C_3	130.748028

Constants of Dispersion dn/dT

D_0	$-4.27 \cdot 10^{-6}$
D_1	$8.16 \cdot 10^{-9}$
D_2	$-2.00 \cdot 10^{-11}$
E_0	$9.02 \cdot 10^{-7}$
E_1	$1.22 \cdot 10^{-9}$
λ_{TK} [µm]	0.272

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.727	0.450
2325	0.799	0.570
1970	0.937	0.850
1530	0.991	0.977
1060	0.999	0.997
700	0.995	0.988
660	0.994	0.984
620	0.994	0.984
580	0.995	0.987
546	0.994	0.986
500	0.989	0.972
460	0.980	0.950
436	0.971	0.930
420	0.959	0.900
405	0.937	0.850
400	0.924	0.820
390	0.872	0.710
380	0.746	0.480
370	0.468	0.150
365	0.260	0.040
350	0.001	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/36
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2229
$P_{C,s}$	0.4776
$P_{d,C}$	0.2905
$P_{e,d}$	0.2362
$P_{g,F}$	0.5991
$P_{i,h}$	
$P'_{s,t}$	0.2195
$P'_{C',s}$	0.5150
$P'_{d,C'}$	0.2414
$P'_{e,d}$	0.2326
$P'_{g,F'}$	0.5301
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0072
$\Delta P_{C,s}$	0.0018
$\Delta P_{F,e}$	0.0013
$\Delta P_{g,F}$	0.0079
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	11.1
T_g [°C]	524
$T_{10}^{13.0}$ [°C]	531
$T_{10}^{7.6}$ [°C]	629
c_p [J/(g·K)]	0.790
λ [W/(m·K)]	1.020
AT [°C]	580
ρ [g/cm^3]	2.90
E [10^3 N/mm^2]	86
µ	0.253
K [10^{-6} mm^2/N]	2.73
HK$_{0.1/20}$	533
HG	
HG-J	200
B	1
CR	1
FR	0
SR	1
AR	1.2
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	-0.2	1.3	3.2	-2.4	-1.0	0.8
+20/ +40	-0.3	1.5	3.7	-1.7	0.0	2.2
+60/ +80	-0.3	1.7	4.1	-1.4	0.5	3.0

Data Sheet

SCHOTT

P-SF67
907214.424

$n_d = 1.90680$	$\nu_d = 21.40$	$n_F - n_C = 0.042374$
$n_e = 1.91675$	$\nu_e = 21.23$	$n_{F'} - n_{C'} = 0.043191$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.83479
$n_{1970.1}$	1970.1	1.84280
$n_{1529.6}$	1529.6	1.85235
$n_{1060.0}$	1060.0	1.86543
n_t	1014.0	1.86727
n_s	852.1	1.87574
n_r	706.5	1.88833
n_C	656.3	1.89480
$n_{C'}$	643.8	1.89666
$n_{632.8}$	632.8	1.89841
n_D	589.3	1.90644
n_d	587.6	1.90680
n_e	546.1	1.91675
n_F	486.1	1.93717
$n_{F'}$	480.0	1.93985
n_g	435.8	1.96401
n_h	404.7	
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	1.97464225
B_2	0.467095921
B_3	2.43154209
C_1	0.0145772324
C_2	0.0669790359
C_3	157.444895

Constants of Dispersion dn/dT

D_0	$4.82 \cdot 10^{-7}$
D_1	$1.15 \cdot 10^{-8}$
D_2	$-9.95 \cdot 10^{-12}$
E_0	$1.15 \cdot 10^{-6}$
E_1	$1.65 \cdot 10^{-9}$
λ_{TK} [µm]	0.315

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.933	0.840
2325	0.946	0.870
1970	0.984	0.960
1530	0.994	0.985
1060	0.994	0.985
700	0.983	0.958
660	0.981	0.952
620	0.978	0.946
580	0.971	0.930
546	0.954	0.890
500	0.901	0.770
460	0.810	0.590
436	0.707	0.420
420	0.574	0.250
405	0.364	0.080
400	0.276	0.040
390	0.090	
380	0.011	
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	48/39*
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.1998
$P_{C,s}$	0.4498
$P_{d,C}$	0.2832
$P_{e,d}$	0.2348
$P_{g,F}$	0.6334
$P_{i,h}$	
$P'_{s,t}$	0.1960
$P'_{C',s}$	0.4843
$P'_{d,C'}$	0.2349
$P'_{e,d}$	0.2303
$P'_{g,F'}$	0.5595
$P'_{i,h}$	

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

$\Delta P_{C,t}$	0.0031
$\Delta P_{C,s}$	-0.0030
$\Delta P_{F,e}$	0.0049
$\Delta P_{g,F}$	0.0256
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	539
$T_{10}^{13.0}$ [°C]	546
$T_{10}^{7.6}$ [°C]	663
c_p [J/(g·K)]	0.530
λ [W/(m·K)]	0.790
AT [°C]	601
ρ [g/cm^3]	4.24
E [10^3 N/mm^2]	90
µ	0.248
K [10^{-6} mm^2/N]	2.96
$HK_{0.1/20}$	440
HG	3
HG-J	309
B	1
CR	1
FR	0
SR	1
AR	1.3
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	2.6	5.5	10.1	0.1	2.9	7.4
+20/ +40	2.8	6.3	11.7	1.2	4.6	10.0
+60/ +80	3.1	7.0	13.0	1.9	5.7	11.7

Data Sheet

SCHOTT

P-SF68
005210.619

$n_d = 2.00520$	$\nu_d = 21.00$	$n_F - n_C = 0.047867$
$n_e = 2.01643$	$\nu_e = 20.82$	$n_{F'} - n_{C'} = 0.048826$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.93381
$n_{1970.1}$	1970.1	1.93968
$n_{1529.6}$	1529.6	1.94732
$n_{1060.0}$	1060.0	1.95970
n_t	1014.0	1.96160
n_s	852.1	1.97063
n_r	706.5	1.98449
n_C	656.3	1.99171
$n_{C'}$	643.8	1.99380
$n_{632.8}$	632.8	1.99576
n_D	589.3	2.00479
n_d	587.6	2.00520
n_e	546.1	2.01643
n_F	486.1	2.03958
$n_{F'}$	480.0	2.04262
n_g	435.8	2.07018
n_h	404.7	
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	2.3330067
B_2	0.452961396
B_3	1.25172339
C_1	0.0168838419
C_2	0.0716086325
C_3	118.707479

Constants of Dispersion dn/dT

D_0	$1.55 \cdot 10^{-5}$
D_1	$2.30 \cdot 10^{-8}$
D_2	$-3.46 \cdot 10^{-11}$
E_0	$2.76 \cdot 10^{-6}$
E_1	$2.93 \cdot 10^{-9}$
λ_{TK} [µm]	0.297

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.793	0.560
2325	0.905	0.780
1970	0.976	0.940
1530	0.996	0.990
1060	0.999	0.998
700	0.997	0.993
660	0.996	0.989
620	0.994	0.985
580	0.989	0.973
546	0.976	0.940
500	0.905	0.780
460	0.758	0.500
436	0.574	0.250
420	0.302	0.050
405	0.036	
400	0.007	
390		
380		
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	49/41*
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.1885
$P_{C,s}$	0.4406
$P_{d,C}$	0.2817
$P_{e,d}$	0.2346
$P_{g,F}$	0.6392
$P_{i,h}$	
$P'_{s,t}$	0.1848
$P'_{C',s}$	0.4746
$P'_{d,C'}$	0.2336
$P'_{e,d}$	0.2300
$P'_{g,F'}$	0.5644
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0156
$\Delta P_{C,s}$	-0.0113
$\Delta P_{F,e}$	0.0063
$\Delta P_{g,F}$	0.0308
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.7
T_g [°C]	428
$T_{10}^{13.0}$ [°C]	430
$T_{10}^{7.6}$ [°C]	504
c_p [J/(g·K)]	0.370
λ [W/(m·K)]	0.650
AT [°C]	468
ρ [g/cm^3]	6.19
E [10^3 N/mm^2]	79
µ	0.275
K [10^{-6} mm^2/N]	1.61
HK$_{0.1/20}$	
HG	
HG-J	298
B	
CR	1
FR	5
SR	53.3
AR	2.3
PR	2.3
SR-J	4
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	13.7	21.5	32.3	11.1	18.8	29.5
+20/ +40	15.2	24.1	36.5	13.5	22.3	34.6
+60/ +80	16.2	25.8	39.1	15.4	25.3	39.2

Data Sheet

SCHOTT

SF1
717295.446

$n_d = 1.71736$	$\nu_d = 29.51$	$n_F - n_C = 0.024307$
$n_e = 1.72310$	$\nu_e = 29.29$	$n_{F'} - n_{C'} = 0.024687$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67352
$n_{1970.1}$	1970.1	1.67855
$n_{1529.6}$	1529.6	1.68449
$n_{1060.0}$	1060.0	1.69258
n_t	1014.0	1.69371
n_s	852.1	1.69888
n_r	706.5	1.70647
n_C	656.3	1.71031
$n_{C'}$	643.8	1.71141
$n_{632.8}$	632.8	1.71245
n_D	589.3	1.71715
n_d	587.6	1.71736
n_e	546.1	1.72310
n_F	486.1	1.73462
$n_{F'}$	480.0	1.73610
n_g	435.8	1.74916
n_h	404.7	1.76201
n_i	365.0	1.78580
$n_{334.1}$	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	1.55912923
B_2	0.284246288
B_3	0.968842926
C_1	0.0121481001
C_2	0.0534549042
C_3	112.174809

Constants of Dispersion dn/dT

D_0	$4.84 \cdot 10^{-6}$
D_1	$1.70 \cdot 10^{-8}$
D_2	$-4.52 \cdot 10^{-11}$
E_0	$1.38 \cdot 10^{-6}$
E_1	$1.26 \cdot 10^{-9}$
λ_{TK} [µm]	0.259

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.842	0.650
2325	0.882	0.730
1970	0.959	0.900
1530	0.994	0.985
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.996
500	0.997	0.993
460	0.994	0.984
436	0.990	0.976
420	0.984	0.961
405	0.971	0.930
400	0.967	0.920
390	0.946	0.870
380	0.910	0.790
370	0.837	0.640
365	0.758	0.500
350	0.300	0.030
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/34
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2127
$P_{C,s}$	0.4705
$P_{d,C}$	0.2899
$P_{e,d}$	0.2364
$P_{g,F}$	0.5983
$P_{i,h}$	0.9791
$P'_{s,t}$	0.2094
$P'_{C',s}$	0.5078
$P'_{d,C'}$	0.2409
$P'_{e,d}$	0.2327
$P'_{g,F'}$	0.5292
$P'_{i,h}$	0.9640

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

$\Delta P_{C,t}$	-0.0018
$\Delta P_{C,s}$	-0.0012
$\Delta P_{F,e}$	0.0009
$\Delta P_{g,F}$	0.0042
$\Delta P_{i,g}$	0.0307

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.8
T_g [°C]	417
$T_{10}^{13.0}$ [°C]	415
$T_{10}^{7.6}$ [°C]	566
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	4.46
E [10^3 N/mm^2]	56
µ	0.232
K [10^{-6} mm^2/N]	1.80
HK$_{0.1/20}$	390
HG	1
B	1
CR	2
FR	1
SR	3.2
AR	2.3
PR	3

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	4.5	7.0	10.1	2.2	4.7	7.7
+20/ +40	5.0	7.9	11.3	3.6	6.4	9.8
+60/ +80	5.3	8.4	12.1	4.2	7.3	10.9

Data Sheet

SCHOTT

SF2
648339.386

$n_d = 1.64769$	$\nu_d = 33.85$	$n_F - n_C = 0.019135$
$n_e = 1.65222$	$\nu_e = 33.60$	$n_{F'} - n_{C'} = 0.019412$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61003
$n_{1970.1}$	1970.1	1.61494
$n_{1529.6}$	1529.6	1.62055
$n_{1060.0}$	1060.0	1.62766
n_t	1014.0	1.62861
n_s	852.1	1.63289
n_r	706.5	1.63902
n_C	656.3	1.64210
$n_{C'}$	643.8	1.64297
$n_{632.8}$	632.8	1.64379
n_D	589.3	1.64752
n_d	587.6	1.64769
n_e	546.1	1.65222
n_F	486.1	1.66123
$n_{F'}$	480.0	1.66238
n_g	435.8	1.67249
n_h	404.7	1.68233
n_i	365.0	1.70027
$n_{334.1}$	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	1.40301821
B_2	0.231767504
B_3	0.939056586
C_1	0.0105795466
C_2	0.0493226978
C_3	112.405955

Constants of Dispersion dn/dT

D_0	$1.10 \cdot 10^{-6}$
D_1	$1.75 \cdot 10^{-8}$
D_2	$-1.29 \cdot 10^{-11}$
E_0	$1.08 \cdot 10^{-6}$
E_1	$1.03 \cdot 10^{-9}$
λ_{TK} [µm]	0.249

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.826	0.620
2325	0.872	0.710
1970	0.950	0.880
1530	0.994	0.985
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.994
620	0.998	0.995
580	0.998	0.995
546	0.998	0.995
500	0.997	0.993
460	0.995	0.988
436	0.993	0.982
420	0.990	0.975
405	0.985	0.962
400	0.981	0.954
390	0.967	0.920
380	0.946	0.870
370	0.910	0.790
365	0.877	0.720
350	0.672	0.370
334	0.110	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2233
$P_{C,s}$	0.4813
$P_{d,C}$	0.2923
$P_{e,d}$	0.2367
$P_{g,F}$	0.5886
$P_{i,h}$	0.9376
$P'_{s,t}$	0.2201
$P'_{C',s}$	0.5196
$P'_{d,C'}$	0.2430
$P'_{e,d}$	0.2334
$P'_{g,F'}$	0.5209
$P'_{i,h}$	0.9242

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

$\Delta P_{C,t}$	-0.0009
$\Delta P_{C,s}$	-0.0005
$\Delta P_{F,e}$	0.0004
$\Delta P_{g,F}$	0.0017
$\Delta P_{i,g}$	0.0112

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	441
$T_{10}^{13.0}$ [°C]	428
$T_{10}^{7.6}$ [°C]	600
c_p [J/(g·K)]	0.498
λ [W/(m·K)]	0.735
ρ [g/cm^3]	3.86
E [10^3 N/mm^2]	55
µ	0.227
K [10^{-6} mm^2/N]	2.62
HK$_{0.1/20}$	410
HG	2
B	0
CR	1
FR	0
SR	2
AR	2.3
PR	2

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	2.3	4.0	6.0	0.1	1.8	3.7
+20/ +40	2.7	4.6	6.9	1.3	3.2	5.4
+60/ +80	3.1	5.2	7.6	2.0	4.1	6.4

Data Sheet

SCHOTT

SF4
755276.479

$n_d = 1.75520$	$\nu_d = 27.58$	$n_F - n_C = 0.027383$
$n_e = 1.76167$	$\nu_e = 27.37$	$n_{F'} - n_{C'} = 0.027829$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.70789
$n_{1970.1}$	1970.1	1.71294
$n_{1529.6}$	1529.6	1.71904
$n_{1060.0}$	1060.0	1.72765
n_t	1014.0	1.72888
n_s	852.1	1.73456
n_r	706.5	1.74300
n_C	656.3	1.74730
$n_{C'}$	643.8	1.74853
$n_{632.8}$	632.8	1.74969
n_D	589.3	1.75496
n_d	587.6	1.75520
n_e	546.1	1.76167
n_F	486.1	1.77468
$n_{F'}$	480.0	1.77636
n_g	435.8	1.79121
n_h	404.7	1.80589
n_i	365.0	1.83330
$n_{334.1}$	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	1.61957826
B_2	0.339493189
B_3	1.02566931
C_1	0.0125502104
C_2	0.0544559822
C_3	117.652222

Constants of Dispersion dn/dT

D_0	$5.60 \cdot 10^{-6}$
D_1	$1.70 \cdot 10^{-8}$
D_2	$-5.27 \cdot 10^{-11}$
E_0	$1.54 \cdot 10^{-6}$
E_1	$1.46 \cdot 10^{-9}$
λ_{TK} [µm]	0.266

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.847	0.660
2325	0.887	0.740
1970	0.963	0.910
1530	0.996	0.989
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.996
500	0.996	0.991
460	0.992	0.980
436	0.987	0.967
420	0.980	0.950
405	0.963	0.910
400	0.954	0.890
390	0.924	0.820
380	0.862	0.690
370	0.727	0.450
365	0.601	0.280
350	0.090	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/35
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2076
$P_{C,s}$	0.4650
$P_{d,C}$	0.2886
$P_{e,d}$	0.2361
$P_{g,F}$	0.6036
$P_{i,h}$	1.0012
$P'_{s,t}$	0.2042
$P'_{C',s}$	0.5018
$P'_{d,C'}$	0.2398
$P'_{e,d}$	0.2323
$P'_{g,F'}$	0.5337
$P'_{i,h}$	0.9851

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

$\Delta P_{C,t}$	-0.0032
$\Delta P_{C,s}$	-0.0022
$\Delta P_{F,e}$	0.0014
$\Delta P_{g,F}$	0.0062
$\Delta P_{i,g}$	0.0443

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.0
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.9
T_g [°C]	420
$T_{10}^{13.0}$ [°C]	415
$T_{10}^{7.6}$ [°C]	552
c_p [J/(g·K)]	0.410
λ [W/(m·K)]	0.650
ρ [g/cm^3]	4.79
E [10^3 N/mm^2]	56
μ	0.241
K [10^{-6} mm^2/N]	1.36
HK$_{0.1/20}$	390
HG	1
B	1
CR	1
FR	2
SR	4.3
AR	2.3
PR	3.3

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	5.1	8.1	11.8	2.8	5.7	9.4
+20/ +40	5.7	9.2	13.3	4.3	7.7	11.8
+60/ +80	6.0	9.7	14.2	4.9	8.5	13.0

Data Sheet

SCHOTT

SF5
673322.407

$n_d = 1.67270$	$\nu_d = 32.21$	$n_F - n_C = 0.020885$
$n_e = 1.67764$	$\nu_e = 31.97$	$n_{F'} - n_{C'} = 0.021195$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.63289
$n_{1970.1}$	1970.1	1.63785
$n_{1529.6}$	1529.6	1.64359
$n_{1060.0}$	1060.0	1.65104
n_t	1014.0	1.65206
n_s	852.1	1.65664
n_r	706.5	1.66327
n_C	656.3	1.66661
$n_{C'}$	643.8	1.66756
$n_{632.8}$	632.8	1.66846
n_D	589.3	1.67252
n_d	587.6	1.67270
n_e	546.1	1.67764
n_F	486.1	1.68750
$n_{F'}$	480.0	1.68876
n_g	435.8	1.69986
n_h	404.7	1.71069
n_i	365.0	1.73056
$n_{334.1}$	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	1.46141885
B_2	0.247713019
B_3	0.949995832
C_1	0.0111826126
C_2	0.0508594669
C_3	112.041888

Constants of Dispersion dn/dT

D_0	$2.59 \cdot 10^{-6}$
D_1	$1.76 \cdot 10^{-8}$
D_2	$-2.03 \cdot 10^{-11}$
E_0	$1.17 \cdot 10^{-6}$
E_1	$1.09 \cdot 10^{-9}$
λ_{TK} [µm]	0.255

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.847	0.660
2325	0.887	0.740
1970	0.959	0.900
1530	0.995	0.987
1060	0.998	0.996
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.996
546	0.998	0.996
500	0.997	0.993
460	0.995	0.988
436	0.993	0.982
420	0.989	0.973
405	0.983	0.959
400	0.980	0.950
390	0.967	0.920
380	0.950	0.880
370	0.915	0.800
365	0.882	0.730
350	0.626	0.310
334	0.200	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2194
$P_{C,s}$	0.4775
$P_{d,C}$	0.2915
$P_{e,d}$	0.2366
$P_{g,F}$	0.5919
$P_{i,h}$	0.9513
$P'_{s,t}$	0.2162
$P'_{C',s}$	0.5153
$P'_{d,C'}$	0.2423
$P'_{e,d}$	0.2331
$P'_{g,F'}$	0.5237
$P'_{i,h}$	0.9374

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

$\Delta P_{C,t}$	-0.0010
$\Delta P_{C,s}$	-0.0005
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0023
$\Delta P_{i,g}$	0.0160

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.0
T_g [°C]	425
$T_{10}^{13.0}$ [°C]	421
$T_{10}^{7.6}$ [°C]	580
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	4.07
E [10^3 N/mm^2]	56
µ	0.233
K [10^{-6} mm^2/N]	2.28
HK$_{0.1/20}$	410
HG	2
B	1
CR	1
FR	1
SR	2
AR	2.3
PR	3

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	3.1	5.1	7.4	0.9	2.8	5.1
+20/ +40	3.5	5.8	8.4	2.1	4.4	6.9
+60/ +80	3.9	6.4	9.2	2.8	5.2	8.0

Data Sheet

SCHOTT

SF6
805254.518

$n_d = 1.80518$	$\nu_d = 25.43$	$n_F - n_C = 0.031660$
$n_e = 1.81265$	$\nu_e = 25.24$	$n_{F'} - n_{C'} = 0.032201$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.75302
$n_{1970.1}$	1970.1	1.75813
$n_{1529.6}$	1529.6	1.76444
$n_{1060.0}$	1060.0	1.77380
n_t	1014.0	1.77517
n_s	852.1	1.78157
n_r	706.5	1.79117
n_C	656.3	1.79609
$n_{C'}$	643.8	1.79750
$n_{632.8}$	632.8	1.79884
n_D	589.3	1.80491
n_d	587.6	1.80518
n_e	546.1	1.81265
n_F	486.1	1.82775
$n_{F'}$	480.0	1.82970
n_g	435.8	1.84707
n_h	404.7	1.86436
n_i	365.0	1.89703
$n_{334.1}$	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	1.72448482
B_2	0.390104889
B_3	1.04572858
C_1	0.0134871947
C_2	0.0569318095
C_3	118.557185

Constants of Dispersion dn/dT

D_0	$6.69 \cdot 10^{-6}$
D_1	$1.78 \cdot 10^{-8}$
D_2	$-3.36 \cdot 10^{-11}$
E_0	$1.77 \cdot 10^{-6}$
E_1	$1.70 \cdot 10^{-9}$
λ_{TK} [µm]	0.269

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.887	0.740
2325	0.910	0.790
1970	0.971	0.930
1530	0.996	0.991
1060	0.999	0.999
700	0.999	0.997
660	0.998	0.996
620	0.998	0.995
580	0.999	0.996
546	0.998	0.996
500	0.996	0.991
460	0.991	0.978
436	0.982	0.955
420	0.967	0.920
405	0.933	0.840
400	0.915	0.800
390	0.847	0.660
380	0.720	0.440
370	0.442	0.130
365	0.246	0.030
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	42/36
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2020
$P_{C,s}$	0.4588
$P_{d,C}$	0.2871
$P_{e,d}$	0.2359
$P_{g,F}$	0.6102
$P_{i,h}$	1.0316
$P'_{s,t}$	0.1986
$P'_{C',s}$	0.4950
$P'_{d,C'}$	0.2384
$P'_{e,d}$	0.2319
$P'_{g,F'}$	0.5393
$P'_{i,h}$	1.0143

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

$\Delta P_{C,t}$	-0.0048
$\Delta P_{C,s}$	-0.0033
$\Delta P_{F,e}$	0.0020
$\Delta P_{g,F}$	0.0092
$\Delta P_{i,g}$	0.0669

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.0
T_g [°C]	423
$T_{10}^{13.0}$ [°C]	410
$T_{10}^{7.6}$ [°C]	538
c_p [J/(g·K)]	0.389
λ [W/(m·K)]	0.673
ρ [g/cm^3]	5.18
E [10^3 N/mm^2]	55
µ	0.244
K [10^{-6} mm^2/N]	0.65
HK$_{0.1/20}$	370
HG	1
B	0
CR	2
FR	3
SR	51.3
AR	2.3
PR	3.3

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	6.1	9.9	14.5	3.7	7.4	11.9
+20/ +40	6.8	11.1	16.2	5.3	9.5	14.6
+60/ +80	7.3	11.8	17.4	6.1	10.6	16.1

Data Sheet

SCHOTT

SF6HT
805254.518

$n_d = 1.80518$	$\nu_d = 25.43$	$n_F - n_C = 0.031660$
$n_e = 1.81265$	$\nu_e = 25.24$	$n_{F'} - n_{C'} = 0.032201$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.75302
$n_{1970.1}$	1970.1	1.75813
$n_{1529.6}$	1529.6	1.76444
$n_{1060.0}$	1060.0	1.77380
n_t	1014.0	1.77517
n_s	852.1	1.78157
n_r	706.5	1.79117
n_C	656.3	1.79609
$n_{C'}$	643.8	1.79750
$n_{632.8}$	632.8	1.79884
n_D	589.3	1.80491
n_d	587.6	1.80518
n_e	546.1	1.81265
n_F	486.1	1.82775
$n_{F'}$	480.0	1.82970
n_g	435.8	1.84707
n_h	404.7	1.86436
n_i	365.0	1.89703
$n_{334.1}$	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	1.72448482
B_2	0.390104889
B_3	1.04572858
C_1	0.0134871947
C_2	0.0569318095
C_3	118.557185

Constants of Dispersion dn/dT

D_0	$6.69 \cdot 10^{-6}$
D_1	$1.78 \cdot 10^{-8}$
D_2	$-3.36 \cdot 10^{-11}$
E_0	$1.77 \cdot 10^{-6}$
E_1	$1.70 \cdot 10^{-9}$
λ_{TK} [µm]	0.269

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.887	0.740
2325	0.910	0.790
1970	0.971	0.930
1530	0.996	0.991
1060	0.999	0.999
700	0.999	0.997
660	0.998	0.996
620	0.998	0.995
580	0.999	0.996
546	0.998	0.996
500	0.996	0.991
460	0.992	0.981
436	0.987	0.967
420	0.977	0.943
405	0.954	0.890
400	0.941	0.860
390	0.891	0.750
380	0.770	0.520
370	0.504	0.180
365	0.302	0.050
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	41/36
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2020
$P_{C,s}$	0.4588
$P_{d,C}$	0.2871
$P_{e,d}$	0.2359
$P_{g,F}$	0.6102
$P_{i,h}$	1.0316
$P'_{s,t}$	0.1986
$P'_{C',s}$	0.4950
$P'_{d,C'}$	0.2384
$P'_{e,d}$	0.2319
$P'_{g,F'}$	0.5393
$P'_{i,h}$	1.0143

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

$\Delta P_{C,t}$	-0.0048
$\Delta P_{C,s}$	-0.0033
$\Delta P_{F,e}$	0.0020
$\Delta P_{g,F}$	0.0092
$\Delta P_{i,g}$	0.0669

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.0
T_g [°C]	423
$T_{10}^{13.0}$ [°C]	410
$T_{10}^{7.6}$ [°C]	538
c_p [J/(g·K)]	0.389
λ [W/(m·K)]	0.673
ρ [g/cm^3]	5.18
E [10^3 N/mm^2]	55
µ	0.244
K [10^{-6} mm^2/N]	0.65
HK$_{0.1/20}$	370
HG	1
B	0
CR	2
FR	3
SR	51.3
AR	2.3
PR	3.3

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	6.1	9.9	14.5	3.7	7.4	11.9
+20/ +40	6.8	11.1	16.2	5.3	9.5	14.6
+60/ +80	7.3	11.8	17.4	6.1	10.6	16.1

Data Sheet

SCHOTT

SF10
728284.428

$n_d = 1.72825$	$\nu_d = 28.41$	$n_F - n_C = 0.025633$
$n_e = 1.73430$	$\nu_e = 28.19$	$n_{F'} - n_{C'} = 0.026051$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.68218
$n_{1970.1}$	1970.1	1.68750
$n_{1529.6}$	1529.6	1.69378
$n_{1060.0}$	1060.0	1.70227
n_t	1014.0	1.70345
n_s	852.1	1.70887
n_r	706.5	1.71681
n_C	656.3	1.72085
$n_{C'}$	643.8	1.72200
$n_{632.8}$	632.8	1.72309
n_D	589.3	1.72803
n_d	587.6	1.72825
n_e	546.1	1.73430
n_F	486.1	1.74648
$n_{F'}$	480.0	1.74805
n_g	435.8	1.76198
n_h	404.7	1.77579
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	1.61625977
B_2	0.259229334
B_3	1.07762317
C_1	0.0127534559
C_2	0.0581983954
C_3	116.60768

Constants of Dispersion dn/dT

D_0	$5.31 \cdot 10^{-6}$
D_1	$1.59 \cdot 10^{-8}$
D_2	$-4.07 \cdot 10^{-11}$
E_0	$1.28 \cdot 10^{-6}$
E_1	$1.32 \cdot 10^{-9}$
λ_{TK} [µm]	0.27

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.862	0.690
2325	0.896	0.760
1970	0.967	0.920
1530	0.995	0.987
1060	0.999	0.997
700	0.998	0.995
660	0.997	0.993
620	0.997	0.993
580	0.998	0.995
546	0.998	0.995
500	0.996	0.989
460	0.991	0.978
436	0.984	0.961
420	0.967	0.920
405	0.910	0.790
400	0.862	0.690
390	0.672	0.370
380	0.360	0.060
370	0.080	
365	0.020	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	41/37
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2111
$P_{C,s}$	0.4674
$P_{d,C}$	0.2888
$P_{e,d}$	0.2361
$P_{g,F}$	0.6046
$P_{i,h}$	
$P'_{s,t}$	0.2077
$P'_{C',s}$	0.5042
$P'_{d,C'}$	0.2399
$P'_{e,d}$	0.2323
$P'_{g,F'}$	0.5346
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0012
$\Delta P_{C,s}$	-0.0017
$\Delta P_{F,e}$	0.0017
$\Delta P_{g,F}$	0.0085
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.4
T_g [°C]	454
$T_{10}^{13.0}$ [°C]	445
$T_{10}^{7.6}$ [°C]	595
c_p [J/(g·K)]	0.465
λ [W/(m·K)]	0.741
ρ [g/cm^3]	4.28
E [10^3 N/mm^2]	64
µ	0.232
K [10^{-6} mm^2/N]	1.95
HK$_{0.1/20}$	430
HG	1
B	0
CR	1
FR	0
SR	1
AR	1.2
PR	2

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	4.8	7.3	10.3	2.5	4.9	7.9
+20/ +40	5.3	8.1	11.6	3.8	6.6	10.0
+60/ +80	5.6	8.6	12.4	4.4	7.4	11.1

Data Sheet

SCHOTT

SF56A
785261.492

$n_d = 1.78470$	$\nu_d = 26.08$	$n_F - n_C = 0.030092$
$n_e = 1.79180$	$\nu_e = 25.87$	$n_{F'} - n_{C'} = 0.030603$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.73406
$n_{1970.1}$	1970.1	1.73925
$n_{1529.6}$	1529.6	1.74559
$n_{1060.0}$	1060.0	1.75473
n_t	1014.0	1.75606
n_s	852.1	1.76220
n_r	706.5	1.77136
n_C	656.3	1.77605
$n_{C'}$	643.8	1.77740
$n_{632.8}$	632.8	1.77866
n_D	589.3	1.78444
n_d	587.6	1.78470
n_e	546.1	1.79180
n_F	486.1	1.80615
$n_{F'}$	480.0	1.80800
n_g	435.8	1.82449
n_h	404.7	1.84092
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	1.70579259
B_2	0.344223052
B_3	1.09601828
C_1	0.0133874699
C_2	0.0579561608
C_3	121.616024

Constants of Dispersion dn/dT

D_0	$6.02 \cdot 10^{-6}$
D_1	$1.70 \cdot 10^{-8}$
D_2	$-2.61 \cdot 10^{-11}$
E_0	$1.63 \cdot 10^{-6}$
E_1	$1.59 \cdot 10^{-9}$
λ_{TK} [µm]	0.269

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.867	0.700
2325	0.896	0.760
1970	0.967	0.920
1530	0.996	0.989
1060	0.999	0.997
700	0.998	0.995
660	0.997	0.993
620	0.998	0.994
580	0.998	0.994
546	0.998	0.994
500	0.996	0.989
460	0.990	0.974
436	0.980	0.950
420	0.959	0.900
405	0.896	0.760
400	0.857	0.680
390	0.700	0.410
380	0.398	0.100
370	0.120	0.010
365	0.040	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	42/37
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type

Relative Partial Dispersion

$P_{s,t}$	0.2040
$P_{C,s}$	0.4605
$P_{d,C}$	0.2874
$P_{e,d}$	0.2359
$P_{g,F}$	0.6098
$P_{i,h}$	
$P'_{s,t}$	0.2006
$P'_{C',s}$	0.4967
$P'_{d,C'}$	0.2387
$P'_{e,d}$	0.2319
$P'_{g,F'}$	0.5390
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0042
$\Delta P_{C,s}$	-0.0032
$\Delta P_{F,e}$	0.0021
$\Delta P_{g,F}$	0.0098
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.9
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.8
T_g [°C]	429
$T_{10}^{13.0}$ [°C]	426
$T_{10}^{7.6}$ [°C]	556
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	4.92
E [10^3 N/mm^2]	57
µ	0.239
K [10^{-6} mm^2/N]	1.10
HK$_{0.1/20}$	380
HG	1
B	1
CR	1
FR	1
SR	3.2
AR	2.2
PR	3.2

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	5.6	9.0	13.1	3.3	6.6	10.6
+20/ +40	6.2	10.0	14.7	4.7	8.5	13.1
+60/ +80	6.6	10.7	15.8	5.5	9.5	14.5

Data Sheet

SCHOTT

SF57
847238.551

$n_d = 1.84666$	$\nu_d = 23.83$	$n_F - n_C = 0.035536$
$n_e = 1.85504$	$\nu_e = 23.64$	$n_{F'} - n_{C'} = 0.036166$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.79026
$n_{1970.1}$	1970.1	1.79539
$n_{1529.6}$	1529.6	1.80187
$n_{1060.0}$	1060.0	1.81185
n_t	1014.0	1.81335
n_s	852.1	1.82038
n_r	706.5	1.83102
n_C	656.3	1.83650
$n_{C'}$	643.8	1.83808
$n_{632.8}$	632.8	1.83957
n_D	589.3	1.84636
n_d	587.6	1.84666
n_e	546.1	1.85504
n_F	486.1	1.87204
$n_{F'}$	480.0	1.87425
n_g	435.8	1.89393
n_h	404.7	1.91366
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	1.81651371
B_2	0.428893641
B_3	1.07186278
C_1	0.0143704198
C_2	0.0592801172
C_3	121.419942

Constants of Dispersion dn/dT

D_0	$7.26 \cdot 10^{-6}$
D_1	$1.88 \cdot 10^{-8}$
D_2	$-5.14 \cdot 10^{-11}$
E_0	$1.96 \cdot 10^{-6}$
E_1	$1.79 \cdot 10^{-9}$
λ_{TK} [µm]	0.276

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.891	0.750
2325	0.910	0.790
1970	0.971	0.930
1530	0.996	0.991
1060	0.999	0.997
700	0.998	0.996
660	0.998	0.994
620	0.998	0.994
580	0.998	0.994
546	0.998	0.994
500	0.994	0.986
460	0.987	0.968
436	0.971	0.930
420	0.941	0.860
405	0.882	0.730
400	0.847	0.660
390	0.727	0.450
380	0.523	0.198
370	0.160	0.010
365	0.040	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/37*
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type, suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.1976
$P_{C,s}$	0.4539
$P_{d,C}$	0.2859
$P_{e,d}$	0.2356
$P_{g,F}$	0.6160
$P_{i,h}$	
$P'_{s,t}$	0.1942
$P'_{C',s}$	0.4895
$P'_{d,C'}$	0.2373
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5443
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0065
$\Delta P_{C,s}$	-0.0046
$\Delta P_{F,e}$	0.0026
$\Delta P_{g,F}$	0.0123
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	414
$T_{10}^{13.0}$ [°C]	391
$T_{10}^{7.6}$ [°C]	519
c_p [J/(g·K)]	0.360
λ [W/(m·K)]	0.620
AT [°C]	449
ρ [g/cm^3]	5.51
E [10^3 N/mm^2]	54
µ	0.248
K [10^{-6} mm^2/N]	0.02
$HK_{0.1/20}$	350
HG	1
HG-J	344
B	0
CR	2
FR	5
SR	52.3
AR	2.3
PR	4.3
SR-J	6
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	6.6	11.1	16.7	4.2	8.6	14.1
+20/ +40	7.6	12.5	18.9	6.0	10.9	17.2
+60/ +80	8.0	13.4	20.1	6.8	12.1	18.8

Data Sheet

SCHOTT

SF57HHT
847238.551

$n_d = 1.84666$	$\nu_d = 23.83$	$n_F - n_C = 0.035536$
$n_e = 1.85504$	$\nu_e = 23.64$	$n_{F'} - n_{C'} = 0.036166$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.79026
$n_{1970.1}$	1970.1	1.79539
$n_{1529.6}$	1529.6	1.80187
$n_{1060.0}$	1060.0	1.81185
n_t	1014.0	1.81335
n_s	852.1	1.82038
n_r	706.5	1.83102
n_C	656.3	1.83650
$n_{C'}$	643.8	1.83808
$n_{632.8}$	632.8	1.83957
n_D	589.3	1.84636
n_d	587.6	1.84666
n_e	546.1	1.85504
n_F	486.1	1.87204
$n_{F'}$	480.0	1.87425
n_g	435.8	1.89393
n_h	404.7	1.91366
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	1.81651371
B_2	0.428893641
B_3	1.07186278
C_1	0.0143704198
C_2	0.0592801172
C_3	121.419942

Constants of Dispersion dn/dT

D_0	$7.26 \cdot 10^{-6}$
D_1	$1.88 \cdot 10^{-8}$
D_2	$-5.14 \cdot 10^{-11}$
E_0	$1.96 \cdot 10^{-6}$
E_1	$1.79 \cdot 10^{-9}$
λ_{TK} [µm]	0.276

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.914	0.798
2325	0.930	0.835
1970	0.980	0.951
1530	0.998	0.994
1060	0.999	0.999
700	0.999	0.998
660	0.999	0.997
620	0.999	0.997
580	0.999	0.997
546	0.999	0.997
500	0.996	0.990
460	0.991	0.978
436	0.985	0.962
420	0.971	0.930
405	0.941	0.860
400	0.924	0.820
390	0.831	0.630
380	0.621	0.304
370	0.250	0.029
365	0.100	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	39/36*
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type, suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.1976
$P_{C,s}$	0.4539
$P_{d,C}$	0.2859
$P_{e,d}$	0.2356
$P_{g,F}$	0.6160
$P_{i,h}$	
$P'_{s,t}$	0.1942
$P'_{C',s}$	0.4895
$P'_{d,C'}$	0.2373
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5443
$P'_{i,h}$	

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

$\Delta P_{C,t}$	-0.0065
$\Delta P_{C,s}$	-0.0046
$\Delta P_{F,e}$	0.0026
$\Delta P_{g,F}$	0.0123
$\Delta P_{i,g}$	

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	414
$T_{10}^{13.0}$ [°C]	391
$T_{10}^{7.6}$ [°C]	519
c_p [J/(g·K)]	0.360
λ [W/(m·K)]	0.620
AT [°C]	449
ρ [g/cm^3]	5.51
E [10^3 N/mm^2]	54
µ	0.248
K [10^{-6} mm^2/N]	0.02
HK$_{0.1/20}$	350
HG	1
HG-J	344
B	0
CR	2
FR	5
SR	52.3
AR	2.3
PR	4.3
SR-J	6
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	6.6	11.1	16.7	4.2	8.6	14.1
+20/ +40	7.6	12.5	18.9	6.0	10.9	17.2
+60/ +80	8.0	13.4	20.1	6.8	12.1	18.8

Data Sheet

SCHOTT

KZFS12
696363.384

$n_d = 1.69600$	$\nu_d = 36.29$	$n_F - n_C = 0.019179$
$n_e = 1.70055$	$\nu_e = 36.06$	$n_{F'} - n_{C'} = 0.019425$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.64970
$n_{1970.1}$	1970.1	1.65749
$n_{1529.6}$	1529.6	1.66580
$n_{1060.0}$	1060.0	1.67488
n_t	1014.0	1.67598
n_s	852.1	1.68071
n_r	706.5	1.68717
n_C	656.3	1.69033
$n_{C'}$	643.8	1.69122
$n_{632.8}$	632.8	1.69206
n_D	589.3	1.69583
n_d	587.6	1.69600
n_e	546.1	1.70055
n_F	486.1	1.70951
$n_{F'}$	480.0	1.71065
n_g	435.8	1.72059
n_h	404.7	1.73017
n_i	365.0	1.74746
$n_{334.1}$	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	1.55624873
B_2	0.239769276
B_3	0.947887658
C_1	0.0102012744
C_2	0.0469277969
C_3	69.8370722

Constants of Dispersion dn/dT

D_0	$4.36 \cdot 10^{-6}$
D_1	$1.32 \cdot 10^{-8}$
D_2	$-1.81 \cdot 10^{-11}$
E_0	$6.86 \cdot 10^{-7}$
E_1	$6.81 \cdot 10^{-10}$
λ_{TK} [µm]	0.253

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.276	0.040
2325	0.618	0.300
1970	0.919	0.810
1530	0.976	0.940
1060	0.998	0.994
700	0.997	0.993
660	0.997	0.992
620	0.997	0.992
580	0.996	0.991
546	0.996	0.991
500	0.994	0.986
460	0.988	0.971
436	0.977	0.944
420	0.963	0.910
405	0.933	0.840
400	0.919	0.810
390	0.877	0.720
380	0.804	0.580
370	0.679	0.380
365	0.574	0.250
350	0.109	0.004
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/35
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type, will become inquiry glass as of Jan 2012, not recommended for new design

Relative Partial Dispersion

$P_{s,t}$	0.2468
$P_{C,s}$	0.5013
$P_{d,C}$	0.2957
$P_{e,d}$	0.2371
$P_{g,F}$	0.5778
$P_{i,h}$	0.9012
$P'_{s,t}$	0.2436
$P'_{C',s}$	0.5409
$P'_{d,C'}$	0.2460
$P'_{e,d}$	0.2341
$P'_{g,F'}$	0.5118
$P'_{i,h}$	0.8898

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

$\Delta P_{C,t}$	0.0309
$\Delta P_{C,s}$	0.0138
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0050
$\Delta P_{i,g}$	-0.0189

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	5.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	6.2
T_g [°C]	492
$T_{10}^{13.0}$ [°C]	476
$T_{10}^{7.6}$ [°C]	549
c_p [J/(g·K)]	0.540
λ [W/(m·K)]	0.710
ρ [g/cm^3]	3.84
E [10^3 N/mm^2]	66
μ	0.279
K [10^{-6} mm^2/N]	2.35
HK$_{0.1/20}$	440
HG	4
B	1
CR	4
FR	1
SR	53.3
AR	4.3
PR	4.3

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	4.1	5.4	6.8	1.9	3.1	4.4
+20/ +40	4.3	5.7	7.3	2.8	4.2	5.8
+60/ +80	4.5	6.0	7.8	3.4	4.9	6.6

Data Sheet

SCHOTT

KZFSN5
654396.346

$n_d = 1.65412$	$\nu_d = 39.63$	$n_F - n_C = 0.016507$
$n_e = 1.65803$	$\nu_e = 39.40$	$n_{F'} - n_{C'} = 0.016701$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61108
$n_{1970.1}$	1970.1	1.61880
$n_{1529.6}$	1529.6	1.62692
$n_{1060.0}$	1060.0	1.63548
n_t	1014.0	1.63649
n_s	852.1	1.64075
n_r	706.5	1.64644
n_C	656.3	1.64920
$n_{C'}$	643.8	1.64998
$n_{632.8}$	632.8	1.65070
n_D	589.3	1.65397
n_d	587.6	1.65412
n_e	546.1	1.65803
n_F	486.1	1.66571
$n_{F'}$	480.0	1.66668
n_g	435.8	1.67512
n_h	404.7	1.68319
n_i	365.0	1.69759
$n_{334.1}$	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	1.47727858
B_2	0.191686941
B_3	0.897333608
C_1	0.00975488335
C_2	0.0450495404
C_3	67.8786495

Constants of Dispersion dn/dT

D_0	$5.51 \cdot 10^{-6}$
D_1	$1.48 \cdot 10^{-8}$
D_2	$-2.21 \cdot 10^{-11}$
E_0	$6.22 \cdot 10^{-7}$
E_1	$7.05 \cdot 10^{-10}$
λ_{TK} [µm]	0.23

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.246	0.030
2325	0.565	0.240
1970	0.901	0.770
1530	0.967	0.920
1060	0.999	0.997
700	0.998	0.996
660	0.998	0.996
620	0.998	0.996
580	0.998	0.996
546	0.998	0.995
500	0.997	0.992
460	0.994	0.985
436	0.991	0.978
420	0.987	0.968
405	0.980	0.950
400	0.976	0.940
390	0.963	0.911
380	0.937	0.850
370	0.887	0.740
365	0.842	0.650
350	0.515	0.190
334	0.130	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/34
(*= λ_{70}/λ_5)	

Remarks

lead containing glass type, will become inquiry glass as of Jan 2011, not recommended for new design

Relative Partial Dispersion

$P_{s,t}$	0.2581
$P_{C,s}$	0.5120
$P_{d,C}$	0.2978
$P_{e,d}$	0.2374
$P_{g,F}$	0.5700
$P_{i,h}$	0.8727
$P'_{s,t}$	0.2551
$P'_{C',s}$	0.5525
$P'_{d,C'}$	0.2479
$P'_{e,d}$	0.2346
$P'_{g,F'}$	0.5053
$P'_{i,h}$	0.8625

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

$\Delta P_{C,t}$	0.0371
$\Delta P_{C,s}$	0.0167
$\Delta P_{F,e}$	-0.0027
$\Delta P_{g,F}$	-0.0071
$\Delta P_{i,g}$	-0.0302

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	4.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	5.7
T_g [°C]	501
$T_{10}^{13.0}$ [°C]	479
$T_{10}^{7.6}$ [°C]	0
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.46
E [10^3 N/mm^2]	65
μ	0.275
K [10^{-6} mm^2/N]	2.89
HK$_{0.1/20}$	460
HG	5
B	1
CR	3
FR	2
SR	52.3
AR	4.3
PR	4.3

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	4.4	5.5	6.6	2.2	3.2	4.3
+20/ +40	4.7	5.9	7.1	3.3	4.4	5.6
+60/ +80	4.9	6.2	7.6	3.8	5.1	6.4

Data Sheet

SCHOTT

N-KZFS2
558540.255

$n_d = 1.55836$	$\nu_d = 54.01$	$n_F - n_C = 0.010338$
$n_e = 1.56082$	$\nu_e = 53.83$	$n_{F'} - n_{C'} = 0.010418$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.52239
$n_{1970.1}$	1970.1	1.53011
$n_{1529.6}$	1529.6	1.53798
$n_{1060.0}$	1060.0	1.54546
n_t	1014.0	1.54625
n_s	852.1	1.54944
n_r	706.5	1.55337
n_C	656.3	1.55519
$n_{C'}$	643.8	1.55570
$n_{632.8}$	632.8	1.55617
n_D	589.3	1.55827
n_d	587.6	1.55836
n_e	546.1	1.56082
n_F	486.1	1.56553
$n_{F'}$	480.0	1.56612
n_g	435.8	1.57114
n_h	404.7	1.57580
n_i	365.0	1.58382
$n_{334.1}$	334.1	1.59259
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.23697554
B_2	0.153569376
B_3	0.903976272
C_1	0.00747170505
C_2	0.0308053556
C_3	70.1731084

Constants of Dispersion dn/dT

D_0	$6.77 \cdot 10^{-6}$
D_1	$1.31 \cdot 10^{-8}$
D_2	$-1.23 \cdot 10^{-11}$
E_0	$3.84 \cdot 10^{-7}$
E_1	$5.51 \cdot 10^{-10}$
λ_{TK} [µm]	0.196

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.276	0.040
2325	0.583	0.260
1970	0.915	0.800
1530	0.976	0.940
1060	0.996	0.991
700	0.998	0.996
660	0.998	0.994
620	0.998	0.994
580	0.998	0.994
546	0.998	0.994
500	0.997	0.992
460	0.995	0.987
436	0.992	0.981
420	0.990	0.975
405	0.987	0.967
400	0.985	0.963
390	0.980	0.950
380	0.971	0.930
370	0.963	0.910
365	0.954	0.890
350	0.915	0.800
334	0.810	0.590
320	0.565	0.240
310	0.246	0.030
300	0.012	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	34/30
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.3080
$P_{C,s}$	0.5568
$P_{d,C}$	0.3061
$P_{e,d}$	0.2383
$P_{g,F}$	0.5419
$P_{i,h}$	0.7758
$P'_{s,t}$	0.3056
$P'_{C',s}$	0.6011
$P'_{d,C'}$	0.2552
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4814
$P'_{i,h}$	0.7699

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

$\Delta P_{C,t}$	0.0636
$\Delta P_{C,s}$	0.0280
$\Delta P_{F,e}$	-0.0044
$\Delta P_{g,F}$	-0.0111
$\Delta P_{i,g}$	-0.0440

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	4.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	5.4
T_g [°C]	491
$T_{10}^{13.0}$ [°C]	488
$T_{10}^{7.6}$ [°C]	600
c_p [J/(g·K)]	0.830
λ [W/(m·K)]	0.810
AT [°C]	533
ρ [g/cm^3]	2.55
E [10^3 N/mm^2]	66
µ	0.266
K [10^{-6} mm^2/N]	4.02
HK$_{0.1/20}$	490
HG	3
HG-J	70
B	1
CR	1
FR	4
SR	52.3
AR	4.3
PR	4.2
SR-J	6
WR-J	6

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	4.6	5.2	5.7	2.5	3.0	3.5
+20/ +40	4.7	5.3	5.9	3.3	3.9	4.5
+60/ +80	4.8	5.5	6.2	3.8	4.5	5.1

Data Sheet

SCHOTT

N-KZFS4
613445.300

$n_d = 1.61336$	$\nu_d = 44.49$	$n_F - n_C = 0.013785$
$n_e = 1.61664$	$\nu_e = 44.27$	$n_{F'} - n_{C'} = 0.013929$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57535
$n_{1970.1}$	1970.1	1.58233
$n_{1529.6}$	1529.6	1.58971
$n_{1060.0}$	1060.0	1.59739
n_t	1014.0	1.59828
n_s	852.1	1.60199
n_r	706.5	1.60688
n_C	656.3	1.60922
$n_{C'}$	643.8	1.60987
$n_{632.8}$	632.8	1.61049
n_D	589.3	1.61324
n_d	587.6	1.61336
n_e	546.1	1.61664
n_F	486.1	1.62300
$n_{F'}$	480.0	1.62380
n_g	435.8	1.63071
n_h	404.7	1.63723
n_i	365.0	1.64865
$n_{334.1}$	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	1.35055424
B_2	0.197575506
B_3	1.09962992
C_1	0.0087628207
C_2	0.0371767201
C_3	90.3866994

Constants of Dispersion dn/dT

D_0	$1.81 \cdot 10^{-6}$
D_1	$1.16 \cdot 10^{-8}$
D_2	$-7.99 \cdot 10^{-12}$
E_0	$6.20 \cdot 10^{-7}$
E_1	$7.94 \cdot 10^{-10}$
λ_{TK} [µm]	0.205

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.556	0.230
2325	0.793	0.560
1970	0.965	0.915
1530	0.988	0.970
1060	0.998	0.996
700	0.998	0.994
660	0.997	0.993
620	0.997	0.993
580	0.997	0.993
546	0.997	0.992
500	0.995	0.987
460	0.990	0.976
436	0.987	0.968
420	0.984	0.961
405	0.981	0.952
400	0.979	0.948
390	0.971	0.930
380	0.963	0.910
370	0.941	0.860
365	0.924	0.820
350	0.815	0.600
334	0.468	0.150
320	0.040	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/32
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2694
$P_{C,s}$	0.5240
$P_{d,C}$	0.3006
$P_{e,d}$	0.2378
$P_{g,F}$	0.5590
$P_{i,h}$	0.8284
$P'_{s,t}$	0.2666
$P'_{C',s}$	0.5657
$P'_{d,C'}$	0.2503
$P'_{e,d}$	0.2353
$P'_{g,F'}$	0.4958
$P'_{i,h}$	0.8199

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

$\Delta P_{C,t}$	0.0373
$\Delta P_{C,s}$	0.0173
$\Delta P_{F,e}$	-0.0033
$\Delta P_{g,F}$	-0.0100
$\Delta P_{i,g}$	-0.0496

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.2
T_g [°C]	536
$T_{10}^{13.0}$ [°C]	541
$T_{10}^{7.6}$ [°C]	664
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	0.840
AT [°C]	597
ρ [g/cm^3]	3.00
E [10^3 N/mm^2]	78
µ	0.241
K [10^{-6} mm^2/N]	3.90
HK$_{0.1/20}$	520
HG	3
HG-J	130
B	1
CR	1
FR	1
SR	3.4
AR	1.2
PR	1
SR-J	6
WR-J	4

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	2.7	3.5	4.4	0.5	1.3	2.2
+20/ +40	2.7	3.7	4.7	1.3	2.3	3.2
+60/ +80	2.8	3.9	5.0	1.7	2.8	3.9

Data Sheet

SCHOTT

N-KZFS5
654397.304

$n_d = 1.65412$	$\nu_d = 39.70$	$n_F - n_C = 0.016477$
$n_e = 1.65803$	$\nu_e = 39.46$	$n_{F'} - n_{C'} = 0.016675$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.61392
$n_{1970.1}$	1970.1	1.62058
$n_{1529.6}$	1529.6	1.62780
$n_{1060.0}$	1060.0	1.63577
n_t	1014.0	1.63673
n_s	852.1	1.64087
n_r	706.5	1.64649
n_C	656.3	1.64922
$n_{C'}$	643.8	1.65000
$n_{632.8}$	632.8	1.65072
n_D	589.3	1.65398
n_d	587.6	1.65412
n_e	546.1	1.65803
n_F	486.1	1.66570
$n_{F'}$	480.0	1.66667
n_g	435.8	1.67511
n_h	404.7	1.68318
n_i	365.0	1.69756
$n_{334.1}$	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	1.47460789
B_2	0.193584488
B_3	1.26589974
C_1	0.00986143816
C_2	0.0445477583
C_3	106.436258

Constants of Dispersion dn/dT

D_0	$4.54 \cdot 10^{-6}$
D_1	$1.19 \cdot 10^{-8}$
D_2	$2.93 \cdot 10^{-12}$
E_0	$6.89 \cdot 10^{-7}$
E_1	$8.60 \cdot 10^{-10}$
λ_{TK} [µm]	0.23

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.657	0.350
2325	0.826	0.620
1970	0.963	0.910
1530	0.988	0.970
1060	0.999	0.998
700	0.998	0.994
660	0.997	0.992
620	0.997	0.992
580	0.997	0.993
546	0.997	0.992
500	0.994	0.985
460	0.990	0.974
436	0.986	0.965
420	0.983	0.958
405	0.978	0.946
400	0.976	0.940
390	0.967	0.920
380	0.950	0.880
370	0.928	0.830
365	0.910	0.790
350	0.793	0.560
334	0.372	0.080
320	0.017	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/32
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2511
$P_{C,s}$	0.5070
$P_{d,C}$	0.2972
$P_{e,d}$	0.2374
$P_{g,F}$	0.5710
$P_{i,h}$	0.8729
$P'_{s,t}$	0.2481
$P'_{C',s}$	0.5473
$P'_{d,C'}$	0.2474
$P'_{e,d}$	0.2345
$P'_{g,F'}$	0.5060
$P'_{i,h}$	0.8625

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

$\Delta P_{C,t}$	0.0248
$\Delta P_{C,s}$	0.0115
$\Delta P_{F,e}$	-0.0021
$\Delta P_{g,F}$	-0.0060
$\Delta P_{i,g}$	-0.0286

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.4
T_g [°C]	584
$T_{10}^{13.0}$ [°C]	593
$T_{10}^{7.6}$ [°C]	739
c_p [J/(g·K)]	0.730
λ [W/(m·K)]	0.950
AT [°C]	648
ρ [g/cm^3]	3.04
E [10^3 N/mm^2]	89
µ	0.243
K [10^{-6} mm^2/N]	3.57
HK$_{0.1/20}$	555
HG	
HG-J	122
B	1
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	4.2	5.3	6.5	2.0	3.1	4.2
+20/ +40	4.2	5.5	6.8	2.8	4.0	5.4
+60/ +80	4.4	5.8	7.3	3.3	4.7	6.1

Data Sheet

SCHOTT

N-KZFS8
720347.320

$n_d = 1.72047$	$\nu_d = 34.70$	$n_F - n_C = 0.020763$
$n_e = 1.72539$	$\nu_e = 34.47$	$n_{F'} - n_{C'} = 0.021046$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.67524
$n_{1970.1}$	1970.1	1.68193
$n_{1529.6}$	1529.6	1.68939
$n_{1060.0}$	1060.0	1.69816
n_t	1014.0	1.69927
n_s	852.1	1.70416
n_r	706.5	1.71099
n_C	656.3	1.71437
$n_{C'}$	643.8	1.71532
$n_{632.8}$	632.8	1.71622
n_D	589.3	1.72029
n_d	587.6	1.72047
n_e	546.1	1.72539
n_F	486.1	1.73513
$n_{F'}$	480.0	1.73637
n_g	435.8	1.74724
n_h	404.7	1.75777
n_i	365.0	1.77690
$n_{334.1}$	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	1.62693651
B_2	0.24369876
B_3	1.62007141
C_1	0.010880863
C_2	0.0494207753
C_3	131.009163

Constants of Dispersion dn/dT

D_0	$7.93 \cdot 10^{-7}$
D_1	$6.47 \cdot 10^{-9}$
D_2	$-5.00 \cdot 10^{-12}$
E_0	$7.71 \cdot 10^{-7}$
E_1	$1.01 \cdot 10^{-9}$
λ_{TK} [µm]	0.254

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.764	0.510
2325	0.867	0.700
1970	0.967	0.920
1530	0.993	0.983
1060	0.999	0.999
700	0.998	0.996
660	0.998	0.995
620	0.998	0.995
580	0.998	0.995
546	0.997	0.993
500	0.994	0.985
460	0.988	0.971
436	0.982	0.955
420	0.976	0.940
405	0.967	0.920
400	0.963	0.910
390	0.946	0.870
380	0.924	0.820
370	0.887	0.740
365	0.857	0.680
350	0.665	0.360
334	0.141	0.010
320	0.042	
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	38/33
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2353
$P_{C,s}$	0.4916
$P_{d,C}$	0.2940
$P_{e,d}$	0.2369
$P_{g,F}$	0.5833
$P_{i,h}$	0.9212
$P'_{s,t}$	0.2322
$P'_{C',s}$	0.5305
$P'_{d,C'}$	0.2445
$P'_{e,d}$	0.2337
$P'_{g,F'}$	0.5165
$P'_{i,h}$	0.9088

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

$\Delta P_{C,t}$	0.0173
$\Delta P_{C,s}$	0.0078
$\Delta P_{F,e}$	-0.0011
$\Delta P_{g,F}$	-0.0021
$\Delta P_{i,g}$	-0.0048

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.4
T_g [°C]	509
$T_{10}^{13.0}$ [°C]	515
$T_{10}^{7.6}$ [°C]	635
c_p [J/(g·K)]	0.760
λ [W/(m·K)]	1.050
AT [°C]	561
ρ [g/cm^3]	3.20
E [10^3 N/mm^2]	103
µ	0.248
K [10^{-6} mm^2/N]	2.94
$HK_{0.1/20}$	570
HG	4
HG-J	152
B	1
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	2.7	4.1	5.6	0.4	1.7	3.2
+20/ +40	2.4	4.0	5.8	0.9	2.5	4.2
+60/ +80	2.4	4.1	6.1	1.2	2.9	4.9

Data Sheet

SCHOTT

N-KZFS11
638424.320

$n_d = 1.63775$	$\nu_d = 42.41$	$n_F - n_C = 0.015038$
$n_e = 1.64132$	$\nu_e = 42.20$	$n_{F'} - n_{C'} = 0.015198$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.59699
$n_{1970.1}$	1970.1	1.60439
$n_{1529.6}$	1529.6	1.61223
$n_{1060.0}$	1060.0	1.62044
n_t	1014.0	1.62139
n_s	852.1	1.62540
n_r	706.5	1.63069
n_C	656.3	1.63324
$n_{C'}$	643.8	1.63395
$n_{632.8}$	632.8	1.63462
n_D	589.3	1.63762
n_d	587.6	1.63775
n_e	546.1	1.64132
n_F	486.1	1.64828
$n_{F'}$	480.0	1.64915
n_g	435.8	1.65670
n_h	404.7	1.66385
n_i	365.0	1.67636
$n_{334.1}$	334.1	1.69037
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.3322245
B_2	0.28924161
B_3	1.15161734
C_1	0.0084029848
C_2	0.034423972
C_3	88.4310532

Constants of Dispersion dn/dT

D_0	$3.34 \cdot 10^{-6}$
D_1	$1.16 \cdot 10^{-8}$
D_2	$-1.80 \cdot 10^{-11}$
E_0	$6.32 \cdot 10^{-7}$
E_1	$7.21 \cdot 10^{-10}$
λ_{TK} [µm]	0.206

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.507	0.183
2325	0.779	0.535
1970	0.965	0.914
1530	0.991	0.977
1060	0.999	0.999
700	0.998	0.994
660	0.997	0.992
620	0.997	0.992
580	0.997	0.992
546	0.997	0.993
500	0.996	0.989
460	0.993	0.982
436	0.991	0.978
420	0.990	0.975
405	0.988	0.971
400	0.987	0.968
390	0.983	0.957
380	0.976	0.940
370	0.963	0.910
365	0.950	0.880
350	0.882	0.730
334	0.727	0.450
320	0.468	0.150
310	0.230	0.020
300	0.048	
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	36/30
(*= λ_{70}/λ_5)	

Remarks

suitable for precision molding

Relative Partial Dispersion

$P_{s,t}$	0.2664
$P_{C,s}$	0.5212
$P_{d,C}$	0.3000
$P_{e,d}$	0.2377
$P_{g,F}$	0.5605
$P_{i,h}$	0.8319
$P'_{s,t}$	0.2636
$P'_{C',s}$	0.5627
$P'_{d,C'}$	0.2499
$P'_{e,d}$	0.2352
$P'_{g,F'}$	0.4971
$P'_{i,h}$	0.8232

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

$\Delta P_{C,t}$	0.0415
$\Delta P_{C,s}$	0.0194
$\Delta P_{F,e}$	-0.0039
$\Delta P_{g,F}$	-0.0120
$\Delta P_{i,g}$	-0.0617

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.6
T_g [°C]	551
$T_{10}^{13.0}$ [°C]	554
$T_{10}^{7.6}$ [°C]	0
c_p [J/(g·K)]	0.690
λ [W/(m·K)]	0.810
AT [°C]	
ρ [g/cm^3]	3.20
E [10^3 N/mm^2]	79
μ	0.251
K [10^{-6} mm^2/N]	4.21
HK$_{0.1/20}$	530
HG	3
HG-J	74
B	1
CR	1
FR	1
SR	3.4
AR	1
PR	1
SR-J	
WR-J	

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	3.5	4.4	5.4	1.3	2.2	3.1
+20/ +40	3.5	4.6	5.7	2.1	3.1	4.2
+60/ +80	3.6	4.8	6.0	2.5	3.7	4.8

Data Sheet

SCHOTT

LITHOSIL-Q
458678.220

n_d = 1.45844	ν_d = 67.83	$n_F - n_C$ = 0.006759
n_e = 1.46005	ν_e = 67.68	$n_{F'} - n_{C'}$ = 0.006798

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.43291
$n_{1970.1}$	1970.1	1.43850
$n_{1529.6}$	1529.6	1.44425
$n_{1060.0}$	1060.0	1.44966
n_t	1014.0	1.45022
n_s	852.1	1.45244
n_r	706.5	1.45512
n_C	656.3	1.45634
$n_{C'}$	643.8	1.45668
$n_{632.8}$	632.8	1.45699
n_D	589.3	1.45838
n_d	587.6	1.45844
n_e	546.1	1.46005
n_F	486.1	1.46310
$n_{F'}$	480.0	1.46348
n_g	435.8	1.46667
n_h	404.7	1.46959
n_i	365.0	1.47451
$n_{334.1}$	334.1	1.47974
$n_{312.6}$	312.6	1.48447
$n_{296.7}$	296.7	1.48871
$n_{280.4}$	280.4	1.49400
$n_{248.3}$	248.3	1.50838

Constants of Dispersion Formula

B_1	0.67071081
B_2	0.433322857
B_3	0.877379057
C_1	0.00449192312
C_2	0.0132812976
C_3	95.8899878

Constants of Dispersion dn/dT

D_0	$2.06 \cdot 10^{-5}$
D_1	$2.51 \cdot 10^{-8}$
D_2	$-2.47 \cdot 10^{-11}$
E_0	$3.12 \cdot 10^{-7}$
E_1	$4.22 \cdot 10^{-10}$
λ_{TK} [µm]	0.16

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.783	0.543
2325	0.913	0.797
1970	0.994	0.986
1530	0.999	0.999
1060	0.999	0.999
700	0.999	0.999
660	0.999	0.999
620	0.999	0.999
580	0.999	0.999
546	0.999	0.999
500	0.999	0.999
460	0.999	0.999
436	0.999	0.999
420	0.999	0.999
405	0.999	0.999
400	0.999	0.999
390	0.999	0.999
380	0.999	0.999
370	0.999	0.999
365	0.999	0.999
350	0.999	0.999
334	0.999	0.999
320	0.999	0.999
310	0.999	0.999
300	0.999	0.999
290	0.999	0.999
280	0.999	0.999
270	0.999	0.999
260	0.999	0.999
250	0.999	0.999

Color Code

λ_{80}/λ_5	17/16
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.3288
$P_{C,s}$	0.5770
$P_{d,C}$	0.3102
$P_{e,d}$	0.2388
$P_{g,F}$	0.5276
$P_{i,h}$	0.7283
$P'_{s,t}$	0.3269
$P'_{C',s}$	0.6233
$P'_{d,C'}$	0.2588
$P'_{e,d}$	0.2375
$P'_{g,F'}$	0.4693
$P'_{i,h}$	0.7241

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

$\Delta P_{C,t}$	0.0390
$\Delta P_{C,s}$	0.0160
$\Delta P_{F,e}$	-0.0017
$\Delta P_{g,F}$	-0.0021
$\Delta P_{i,g}$	0.0054

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	0.5
$\alpha_{+20/+300°C}$ [10^{-6}/K]	0.6
T_g [°C]	980
$T_{10^{13.0}}$ [°C]	1080
$T_{10^{7.6}}$ [°C]	1600
c_p [J/(g·K)]	0.790
λ [W/(m·K)]	1.310
ρ [g/cm^3]	2.20
E [10^3 N/mm^2]	72
µ	0.170
K [10^{-6} mm^2/N]	3.40
HK$_{0.1/20}$	580
HG	
B	0
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	8.8	9.3	9.7	6.9	7.3	7.7
+20/ +40	9.4	9.9	10.4	8.1	8.6	9.0
+60/ +80	9.8	10.4	10.9	8.8	9.4	9.8

Data Sheet

SCHOTT

LITHOTEC-CAF2
434952.318

$n_d = 1.43385$	$\nu_d = 95.23$	$n_F - n_C = 0.004556$
$n_e = 1.43494$	$\nu_e = 94.69$	$n_{F'} - n_{C'} = 0.004593$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.42212
$n_{1970.1}$	1970.1	1.42402
$n_{1529.6}$	1529.6	1.42613
$n_{1060.0}$	1060.0	1.42851
n_t	1014.0	1.42880
n_s	852.1	1.43003
n_r	706.5	1.43167
n_C	656.3	1.43246
$n_{C'}$	643.8	1.43268
$n_{632.8}$	632.8	1.43289
n_D	589.3	1.43381
n_d	587.6	1.43385
n_e	546.1	1.43494
n_F	486.1	1.43702
$n_{F'}$	480.0	1.43727
n_g	435.8	1.43947
n_h	404.7	1.44149
n_i	365.0	1.44489
$n_{334.1}$	334.1	1.44849
$n_{312.6}$	312.6	1.45173
$n_{296.7}$	296.7	1.45464
$n_{280.4}$	280.4	1.45824
$n_{248.3}$	248.3	1.46792

Constants of Dispersion Formula

B_1	0.617617011
B_2	0.421117656
B_3	3.79711183
C_1	0.00275381936
C_2	0.0105900875
C_3	1182.67444

Constants of Dispersion dn/dT

D_0	$-3.18 \cdot 10^{-5}$
D_1	$-2.31 \cdot 10^{-8}$
D_2	$4.13 \cdot 10^{-11}$
E_0	$3.35 \cdot 10^{-7}$
E_1	$1.91 \cdot 10^{-10}$
λ_{TK} [µm]	0.192

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.999	0.999
2325	0.999	0.999
1970	0.999	0.999
1530	0.999	0.999
1060	0.999	0.999
700	0.999	0.999
660	0.999	0.999
620	0.999	0.999
580	0.999	0.999
546	0.999	0.999
500	0.999	0.999
460	0.999	0.998
436	0.999	0.998
420	0.999	0.998
405	0.999	0.998
400	0.999	0.998
390	0.999	0.998
380	0.999	0.998
370	0.999	0.998
365	0.999	0.998
350	0.999	0.998
334	0.999	0.998
320	0.999	0.998
310	0.999	0.998
300	0.999	0.998
290	0.999	0.998
280	0.999	0.998
270	0.999	0.998
260	0.999	0.998
250	0.999	0.998

Color Code

λ_{80}/λ_5	14/12
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2698
$P_{C,s}$	0.5333
$P_{d,C}$	0.3046
$P_{e,d}$	0.2388
$P_{g,F}$	0.5388
$P_{i,h}$	0.7462
$P'_{s,t}$	0.2676
$P'_{C',s}$	0.5770
$P'_{d,C'}$	0.2541
$P'_{e,d}$	0.2369
$P'_{g,F'}$	0.4782
$P'_{i,h}$	0.7401

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

$\Delta P_{C,t}$	-0.1935
$\Delta P_{C,s}$	-0.0915
$\Delta P_{F,e}$	0.0183
$\Delta P_{g,F}$	0.0552
$\Delta P_{i,g}$	0.2636

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	18.4
$\alpha_{+20/+300°C}$ [10^{-6}/K]	21.3
T_g [°C]	
$T_{10}^{13.0}$ [°C]	0
$T_{10}^{7.6}$ [°C]	0
c_p [J/(g·K)]	0.854
λ [W/(m·K)]	9.710
ρ [g/cm^3]	3.18
E [10^3 N/mm^2]	76
μ	0.260
K [10^{-6} mm^2/N]	1.77
HK$_{0.1/20}$	158
HG	6
B	1
CR	1
FR	0
SR	4.5
AR	2.3
PR	1.3

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	-8.6	-8.4	-8.1	-10.5	-10.3	-10.1
+20/ +40	-10.4	-10.2	-9.9	-11.6	-11.4	-11.2
+60/ +80	-11.2	-11.0	-10.7	-12.2	-12.0	-11.7

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