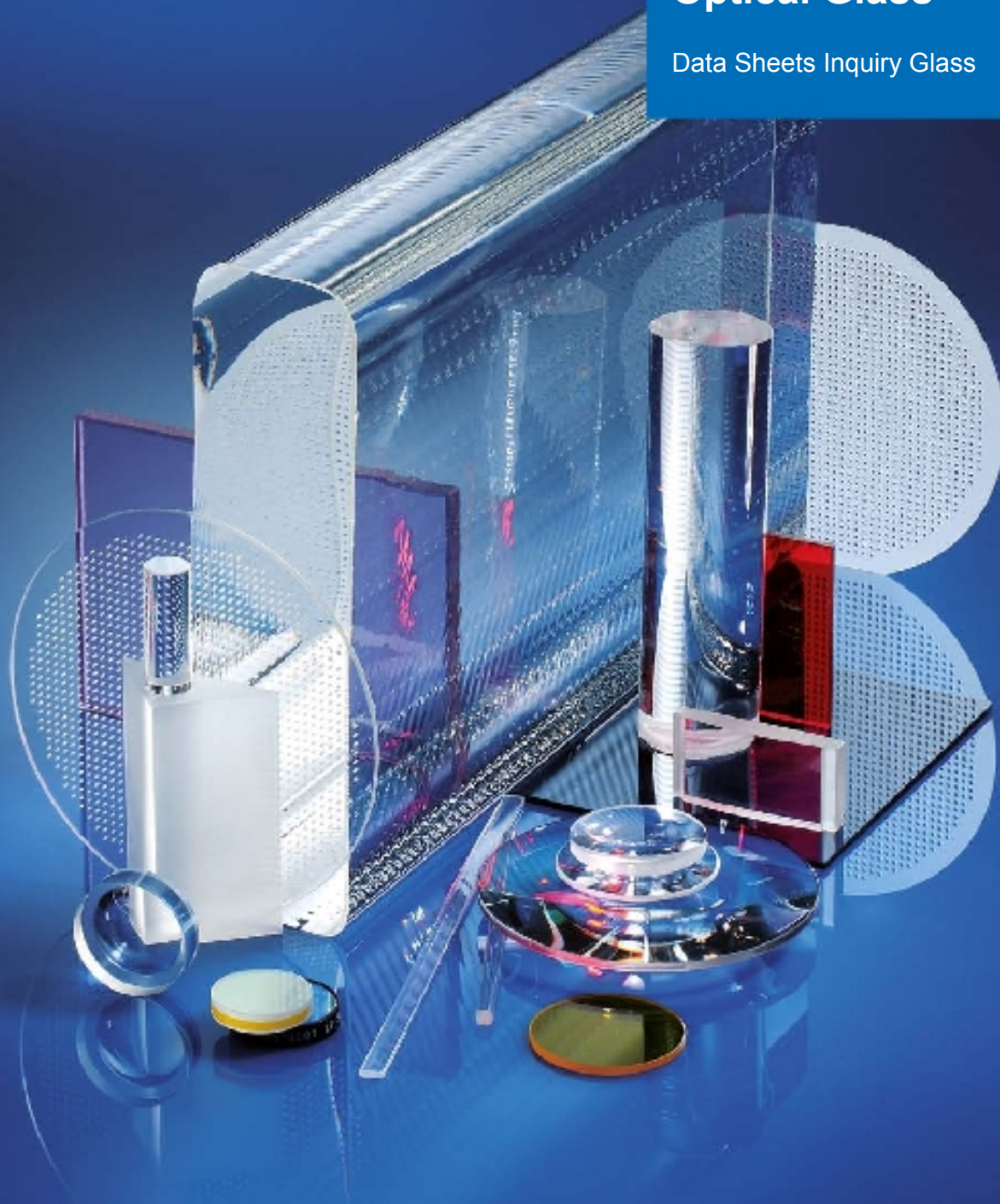


**SCHOTT**  
glass made of ideas

## Optical Glass

Data Sheets Inquiry Glass



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**BAFN6**  
**589485.317**

$n_d = 1.58900$	$v_d = 48.45$	$n_F - n_C = 0.012158$
$n_e = 1.59189$	$v_e = 48.16$	$n_{F'} - n_{C'} = 0.012291$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.55832
$n_{1970.1}$	1970.1	1.56349
$n_{1529.6}$	1529.6	1.56910
$n_{1060.0}$	1060.0	1.57522
$n_t$	1014.0	1.57596
$n_s$	852.1	1.57910
$n_r$	706.5	1.58332
$n_C$	656.3	1.58536
$n_{C'}$	643.8	1.58594
$n_{632.8}$	632.8	1.58647
$n_D$	589.3	1.58889
$n_d$	587.6	1.58900
$n_e$	546.1	1.59189
$n_F$	486.1	1.59752
$n_{F'}$	480.0	1.59823
$n_g$	435.8	1.60436
$n_h$	404.7	1.61017
$n_i$	365.0	1.62038
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
<b>2500</b>		
<b>2325</b>	0.910	0.780
<b>1970</b>	0.976	0.940
<b>1530</b>	0.998	0.995
<b>1060</b>	0.998	0.995
<b>700</b>	0.999	0.997
<b>660</b>	0.998	0.995
<b>620</b>	0.998	0.994
<b>580</b>	0.998	0.994
<b>546</b>	0.996	0.991
<b>500</b>	0.994	0.986
<b>460</b>	0.990	0.975
<b>436</b>	0.985	0.963
<b>420</b>	0.981	0.954
<b>405</b>	0.976	0.940
<b>400</b>	0.971	0.930
<b>390</b>	0.954	0.890
<b>380</b>	0.920	0.810
<b>370</b>	0.850	0.670
<b>365</b>	0.790	0.560
<b>350</b>	0.430	0.120
<b>334</b>		
<b>320</b>		
<b>310</b>		
<b>300</b>		
<b>290</b>		
<b>280</b>		
<b>270</b>		
<b>260</b>		
<b>250</b>		

Relative Partial Dispersion	
$P_{s,t}$	0.2580
$P_{C,s}$	0.5152
$P_{d,C}$	0.2993
$P_{e,d}$	0.2377
$P_{g,F}$	0.5625
$P_{i,h}$	0.8405
$P'_{s,t}$	0.2552
$P'_{C',s}$	0.5565
$P'_{d,C'}$	0.2492
$P'_{e,d}$	0.2351
$P'_{g,F'}$	0.4987
$P'_{i,h}$	0.8314

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0015
$\Delta P_{C,s}$	-0.0006
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	0.0002
$\Delta P_{i,g}$	0.0002

Constants of Dispersion Formula	
$B_1$	1.36719201
$B_2$	0.10907994
$B_3$	1.02108011
$C_1$	0.00882820704
$C_2$	0.0438731646
$C_3$	113.58602

Color Code	
$\lambda_{80}/\lambda_5$	38/33
(*= $\lambda_{70}/\lambda_5$ )	

Remarks
inquiry glass. lead containing

Constants of Dispersion $dn/dT$	
$D_0$	$1.34 \cdot 10^{-6}$
$D_1$	$1.34 \cdot 10^{-8}$
$D_2$	$-5.50 \cdot 10^{-11}$
$E_0$	$4.95 \cdot 10^{-7}$
$E_1$	$3.62 \cdot 10^{-10}$
$\lambda_{TK}[\mu m]$	0.265

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.8
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	8.5
$T_g [^\circ C]$	549
$T_{10}^{13.0} [^\circ C]$	0
$T_{10}^{7.6} [^\circ C]$	0
$c_p [J/(g \cdot K)]$	
$\lambda [W/(m \cdot K)]$	
$\rho [g/cm^3]$	3.17
$E [10^3 N/mm^2]$	77
$\mu$	0.234
$K [10^{-6} mm^2/N]$	2.50
$HK_{0.1/20}$	540
<b>HG</b>	
<b>B</b>	1
<b>CR</b>	2
<b>FR</b>	0
<b>SR</b>	2
<b>AR</b>	2
<b>PR</b>	1

Temperature Coefficients of Refractive Index						
[°C]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
<b>-40/ -20</b>	2.1	2.9	3.9	0.0	0.8	1.7
<b>+20/ +40</b>	2.3	3.2	4.3	1.0	1.8	2.8
<b>+60/ +80</b>	2.4	3.3	4.4	1.3	2.2	3.3

## BK7G18 520636.252

$n_d = 1.51975$	$v_d = 63.58$	$n_F - n_C = 0.008174$
$n_e = 1.52170$	$v_e = 63.36$	$n_{F'} - n_{C'} = 0.008233$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.49203
$n_{1970.1}$	1970.1	1.49777
$n_{1529.6}$	1529.6	1.50373
$n_{1060.0}$	1060.0	1.50953
$n_t$	1014.0	1.51015
$n_s$	852.1	1.51267
$n_r$	706.5	1.51579
$n_C$	656.3	1.51724
$n_{C'}$	643.8	1.51764
$n_{632.8}$	632.8	1.51802
$n_D$	589.3	1.51968
$n_d$	587.6	1.51975
$n_e$	546.1	1.52170
$n_F$	486.1	1.52541
$n_{F'}$	480.0	1.52587
$n_g$	435.8	1.52981
$n_h$	404.7	1.53345
$n_i$	365.0	1.53970
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.634	0.320
2325	0.782	0.540
1970	0.933	0.841
1530	0.992	0.979
1060	0.999	0.998
700	0.997	0.993
660	0.995	0.988
620	0.994	0.984
580	0.992	0.979
546	0.989	0.973
500	0.982	0.957
460	0.970	0.927
436	0.947	0.873
420	0.905	0.780
405	0.815	0.600
400	0.764	0.510
390	0.601	0.280
380	0.360	0.080
370	0.080	
365	0.020	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.3077
$P_{C,s}$	0.5591
$P_{d,C}$	0.3071
$P_{e,d}$	0.2385
$P_{g,F}$	0.5376
$P_{i,h}$	0.7640
$P'_{s,t}$	0.3055
$P'_{C',s}$	0.6040
$P'_{d,C'}$	0.2561
$P'_{e,d}$	0.2368
$P'_{g,F'}$	0.4777
$P'_{i,h}$	0.7585

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0203
$\Delta P_{C,s}$	0.0080
$\Delta P_{F,e}$	-0.0006
$\Delta P_{g,F}$	0.0007
$\Delta P_{i,g}$	0.0189

Constants of Dispersion Formula	
$B_1$	1.26538542
$B_2$	0.0144191073
$B_3$	1.00323028
$C_1$	0.00813104078
$C_2$	0.0543303226
$C_3$	102.821166

Constants of Dispersion $dn/dT$	
$D_0$	$1.52 \cdot 10^{-6}$
$D_1$	$1.37 \cdot 10^{-8}$
$D_2$	$-1.26 \cdot 10^{-11}$
$E_0$	$4.36 \cdot 10^{-7}$
$E_1$	$4.17 \cdot 10^{-10}$
$\lambda_{TK}$ [μm]	0.194

Color Code	
$\lambda_{80}/\lambda_5$	41/37
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
radiation resistant glass	

Other Properties	
$\alpha_{-30/+70^\circ C}$ [ $10^{-6}/K$ ]	7.0
$\alpha_{+20/+300^\circ C}$ [ $10^{-6}/K$ ]	8.2
$T_g$ [°C]	585
$T_{10}^{13.0}$ [°C]	570
$T_{10}^{7.6}$ [°C]	722
$c_p$ [J/(g·K)]	0.820
$\lambda$ [W/(m·K)]	1.190
$\rho$ [g/cm <sup>3</sup> ]	2.52
$E$ [ $10^3$ N/mm <sup>2</sup> ]	82
$\mu$	0.205
$K$ [ $10^{-6}$ mm <sup>2</sup> /N]	2.77
$HK_{0.1/20}$	580
HG	
B	0
CR	
FR	0
SR	1
AR	2
PR	

Temperature Coefficients of Refractive Index						
[°C]	$\Delta n_{rel}/\Delta T$ [ $10^{-6}/K$ ]			$\Delta n_{abs}/\Delta T$ [ $10^{-6}/K$ ]		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.2	2.7	3.3	0.2	0.7	1.2
+20/ +40	2.2	2.8	3.4	0.9	1.5	2.1
+60/ +80	2.4	3.0	3.7	1.4	2.0	2.6

## F2G12 621366.360

$n_d = 1.62072$	$v_d = 36.56$	$n_F - n_C = 0.016979$
$n_e = 1.62474$	$v_e = 36.30$	$n_{F'} - n_{C'} = 0.017212$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.58584
$n_{1970.1}$	1970.1	1.59051
$n_{1529.6}$	1529.6	1.59593
$n_{1060.0}$	1060.0	1.60265
$n_t$	1014.0	1.60353
$n_s$	852.1	1.60744
$n_r$	706.5	1.61298
$n_C$	656.3	1.61573
$n_{C'}$	643.8	1.61652
$n_{632.8}$	632.8	1.61725
$n_D$	589.3	1.62057
$n_d$	587.6	1.62072
$n_e$	546.1	1.62474
$n_F$	486.1	1.63271
$n_{F'}$	480.0	1.63373
$n_g$	435.8	1.64261
$n_h$	404.7	1.65121
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.891	0.750
2325	0.924	0.820
1970	0.971	0.930
1530	0.996	0.989
1060	0.999	0.997
700	0.995	0.988
660	0.994	0.984
620	0.992	0.979
580	0.989	0.972
546	0.985	0.963
500	0.974	0.937
460	0.937	0.850
436	0.842	0.650
420	0.693	0.400
405	0.428	0.120
400	0.325	0.060
390	0.124	
380	0.019	
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2303
$P_{C,s}$	0.4883
$P_{d,C}$	0.2937
$P_{e,d}$	0.2369
$P_{g,F}$	0.5831
$P_{i,h}$	
$P'_{s,t}$	0.2272
$P'_{C',s}$	0.5271
$P'_{d,C'}$	0.2443
$P'_{e,d}$	0.2337
$P'_{g,F'}$	0.5163
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0002
$\Delta P_{C,s}$	0.0002
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0008
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.34702224
$B_2$	0.210037763
$B_3$	19.5350768
$C_1$	0.00980850553
$C_2$	0.0471788018
$C_3$	2279.1547

Constants of Dispersion $dn/dT$	
$D_0$	
$D_1$	
$D_2$	
$E_0$	
$E_1$	
$\lambda_{TK}$ [ $\mu\text{m}$ ]	

Color Code	
$\lambda_{80}/\lambda_5$	45/39
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
radiation resistant glass	

Other Properties	
$\alpha_{-30/+70^\circ\text{C}}$ [ $10^{-6}/\text{K}$ ]	8.1
$\alpha_{+20/+300^\circ\text{C}}$ [ $10^{-6}/\text{K}$ ]	9.0
$T_g$ [ $^\circ\text{C}$ ]	435
$T_{10}^{13.0}$ [ $^\circ\text{C}$ ]	438
$T_{10}^{7.6}$ [ $^\circ\text{C}$ ]	604
$c_p$ [ $\text{J}/(\text{g}\cdot\text{K})$ ]	0.530
$\lambda$ [ $\text{W}/(\text{m}\cdot\text{K})$ ]	0.820
$\rho$ [ $\text{g}/\text{cm}^3$ ]	3.60
$E$ [ $10^3 \text{N}/\text{mm}^2$ ]	58
$\mu$	0.222
$K$ [ $10^{-6} \text{mm}^2/\text{N}$ ]	2.79
$HK_{0.1/20}$	428
$HG$	
$B$	1
$CR$	1
$FR$	0
$SR$	1
$AR$	1.3
$PR$	2.3

Temperature Coefficients of Refractive Index						
[ $^\circ\text{C}$ ]	$\Delta n_{rel}/\Delta T$ [ $10^{-6}/\text{K}$ ]			$\Delta n_{abs}/\Delta T$ [ $10^{-6}/\text{K}$ ]		
	1060.0	e	g	1060.0	e	g
-40/ -20						
+20/ +40						
+60/ +80						

**FK3**  
**464658.227**

$n_d = 1.46450$	$v_d = 65.77$	$n_F - n_C = 0.007063$
$n_e = 1.46619$	$v_e = 65.57$	$n_{F'} - n_{C'} = 0.007110$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.43972
$n_{1970.1}$	1970.1	1.44498
$n_{1529.6}$	1529.6	1.45039
$n_{1060.0}$	1060.0	1.45557
$n_t$	1014.0	1.45612
$n_s$	852.1	1.45834
$n_r$	706.5	1.46106
$n_C$	656.3	1.46232
$n_{C'}$	643.8	1.46267
$n_{632.8}$	632.8	1.46300
$n_D$	589.3	1.46444
$n_d$	587.6	1.46450
$n_e$	546.1	1.46619
$n_F$	486.1	1.46939
$n_{F'}$	480.0	1.46978
$n_g$	435.8	1.47315
$n_h$	404.7	1.47625
$n_i$	365.0	1.48149
$n_{334.1}$	334.1	1.48708
$n_{312.6}$	312.6	1.49217
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.650	0.340
2325	0.810	0.590
1970	0.971	0.930
1530	0.988	0.970
1060	0.998	0.995
700	0.997	0.993
660	0.997	0.993
620	0.997	0.993
580	0.997	0.993
546	0.997	0.993
500	0.997	0.993
460	0.996	0.990
436	0.996	0.989
420	0.995	0.987
405	0.994	0.986
400	0.994	0.985
390	0.994	0.984
380	0.992	0.980
370	0.988	0.971
365	0.985	0.964
350	0.954	0.890
334	0.890	0.740
320	0.700	0.410
310	0.510	0.190
300	0.300	0.050
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.3133
$P_{C,s}$	0.5644
$P_{d,C}$	0.3083
$P_{e,d}$	0.2387
$P_{g,F}$	0.5329
$P_{i,h}$	0.7419
$P'_{s,t}$	0.3112
$P'_{C',s}$	0.6097
$P'_{d,C'}$	0.2571
$P'_{e,d}$	0.2371
$P'_{g,F'}$	0.4736
$P'_{i,h}$	0.7370

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0207
$\Delta P_{C,s}$	0.0082
$\Delta P_{F,e}$	-0.0008
$\Delta P_{g,F}$	-0.0003
$\Delta P_{i,g}$	0.0079

Constants of Dispersion Formula	
$B_1$	0.973346627
$B_2$	0.146642231
$B_3$	0.679304225
$C_1$	0.00640795469
$C_2$	0.020565293
$C_3$	80.4965389

Constants of Dispersion $dn/dT$	
$D_0$	$-4.90 \cdot 10^{-6}$
$D_1$	$1.23 \cdot 10^{-8}$
$D_2$	$-1.19 \cdot 10^{-10}$
$E_0$	$3.45 \cdot 10^{-7}$
$E_1$	$7.72 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.18

Color Code	
$\lambda_{80}/\lambda_5$	33/30
(*= $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	8.2
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	9.4
$T_g [^\circ C]$	362
$T_{10}^{13.0} [^\circ C]$	369
$T_{10}^{7.6} [^\circ C]$	622
$c_p [J/(g \cdot K)]$	0.840
$\lambda [W/(m \cdot K)]$	0.900
$\rho [g/cm^3]$	2.27
$E [10^3 N/mm^2]$	46
$\mu$	0.243
$K [10^{-6} mm^2/N]$	3.71
$HK_{0.1/20}$	380
<b>HG</b>	
<b>B</b>	1
<b>CR</b>	2
<b>FR</b>	3
<b>SR</b>	52.4
<b>AR</b>	2
<b>PR</b>	1

Temperature Coefficients of Refractive Index						
[°C]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	-0.7	-0.4	-0.1	-2.6	-2.4	-2.1
+20/ +40	-0.4	0.0	0.3	-1.7	-1.3	-1.0
+60/ +80	-0.6	-0.2	0.3	-1.6	-1.2	-0.8

## K5G20 523568.259

$n_d = 1.52344$	$v_d = 56.76$	$n_F - n_C = 0.009222$
$n_e = 1.52564$	$v_e = 56.47$	$n_{F'} - n_{C'} = 0.009308$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.49784
$n_{1970.1}$	1970.1	1.50236
$n_{1529.6}$	1529.6	1.50730
$n_{1060.0}$	1060.0	1.51258
$n_t$	1014.0	1.51319
$n_s$	852.1	1.51573
$n_r$	706.5	1.51906
$n_C$	656.3	1.52065
$n_{C'}$	643.8	1.52109
$n_{632.8}$	632.8	1.52151
$n_D$	589.3	1.52336
$n_d$	587.6	1.52344
$n_e$	546.1	1.52564
$n_F$	486.1	1.52987
$n_{F'}$	480.0	1.53040
$n_g$	435.8	1.53494
$n_h$	404.7	1.53919
$n_i$	365.0	1.54651
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.634	0.320
2325	0.733	0.460
1970	0.896	0.760
1530	0.990	0.976
1060	0.998	0.995
700	0.997	0.992
660	0.995	0.987
620	0.994	0.985
580	0.993	0.982
546	0.990	0.976
500	0.984	0.961
460	0.971	0.930
436	0.954	0.890
420	0.924	0.820
405	0.857	0.680
400	0.821	0.610
390	0.686	0.390
380	0.442	0.130
370	0.130	
365	0.029	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2764
$P_{C,s}$	0.5327
$P_{d,C}$	0.3027
$P_{e,d}$	0.2382
$P_{g,F}$	0.5500
$P_{i,h}$	0.7943
$P'_{s,t}$	0.2738
$P'_{C',s}$	0.5755
$P'_{d,C'}$	0.2523
$P'_{e,d}$	0.2360
$P'_{g,F'}$	0.4881
$P'_{i,h}$	0.7870

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0051
$\Delta P_{C,s}$	-0.0025
$\Delta P_{F,e}$	0.0005
$\Delta P_{g,F}$	0.0017
$\Delta P_{i,g}$	0.0065

Constants of Dispersion Formula	
$B_1$	1.14094396
$B_2$	0.14500119
$B_3$	37.4705786
$C_1$	0.00694945478
$C_2$	0.0310574444
$C_3$	4536.25624

Constants of Dispersion $dn/dT$	
$D_0$	$-2.22 \cdot 10^{-6}$
$D_1$	$8.45 \cdot 10^{-9}$
$D_2$	$-3.31 \cdot 10^{-11}$
$E_0$	$5.44 \cdot 10^{-7}$
$E_1$	$4.95 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.214

Color Code	
$\lambda_{80}/\lambda_5$	41/37
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
radiation resistant glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	9.0
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	10.3
$T_g [^\circ C]$	483
$T_{10}^{13.0} [^\circ C]$	501
$T_{10}^{7.6} [^\circ C]$	679
$c_p [J/(g \cdot K)]$	0.790
$\lambda [W/(m \cdot K)]$	1.000
$\rho [g/cm^3]$	2.59
$E [10^3 N/mm^2]$	68
$\mu$	0.222
$K [10^{-6} mm^2/N]$	
$HK_{0.1/20}$	510
HG	
B	1
CR	
FR	0
SR	1
AR	1
PR	

Temperature Coefficients of Refractive Index						
[°C]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	0.8	1.5	2.2	-1.2	-0.6	0.1
+20/ +40	0.6	1.4	2.1	-0.7	0.1	0.8
+60/ +80	0.6	1.4	2.2	-0.5	0.3	1.1

## LAK9G15 691548.353

$n_d = 1.69064$	$v_d = 54.76$	$n_F - n_C = 0.012612$
$n_e = 1.69364$	$v_e = 54.53$	$n_{F'} - n_{C'} = 0.012721$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.65362
$n_{1970.1}$	1970.1	1.66043
$n_{1529.6}$	1529.6	1.66783
$n_{1060.0}$	1060.0	1.67552
$n_t$	1014.0	1.67639
$n_s$	852.1	1.67999
$n_r$	706.5	1.68462
$n_C$	656.3	1.68680
$n_{C'}$	643.8	1.68741
$n_{632.8}$	632.8	1.68798
$n_D$	589.3	1.69052
$n_d$	587.6	1.69064
$n_e$	546.1	1.69364
$n_F$	486.1	1.69941
$n_{F'}$	480.0	1.70013
$n_g$	435.8	1.70630
$n_h$	404.7	1.71205
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.480	0.160
2325	0.752	0.490
1970	0.963	0.910
1530	0.995	0.987
1060	0.998	0.996
700	0.994	0.986
660	0.993	0.982
620	0.991	0.978
580	0.989	0.973
546	0.985	0.964
500	0.971	0.930
460	0.919	0.810
436	0.799	0.570
420	0.634	0.320
405	0.382	0.090
400	0.292	0.040
390	0.123	0.010
380	0.026	
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2852
$P_{C,s}$	0.5400
$P_{d,C}$	0.3040
$P_{e,d}$	0.2383
$P_{g,F}$	0.5462
$P_{i,h}$	
$P'_{s,t}$	0.2828
$P'_{C',s}$	0.5834
$P'_{d,C'}$	0.2533
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4849
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0205
$\Delta P_{C,s}$	0.0095
$\Delta P_{F,e}$	-0.0018
$\Delta P_{g,F}$	-0.0055
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.28773667
$B_2$	0.518244853
$B_3$	26.1756109
$C_1$	0.0055754192
$C_2$	0.0223679524
$C_3$	1892.2533

Constants of Dispersion $dn/dT$	
$D_0$	
$D_1$	
$D_2$	
$E_0$	
$E_1$	
$\lambda_{TK}$ [ $\mu m$ ]	

Color Code	
$\lambda_{80}/\lambda_5$	46/38
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
radiation resistant glass	

Other Properties	
$\alpha_{-30/+70^\circ C}$ [ $10^{-6}/K$ ]	6.3
$\alpha_{+20/+300^\circ C}$ [ $10^{-6}/K$ ]	7.6
$T_g$ [ $^\circ C$ ]	634
$T_{10}^{13.0}$ [ $^\circ C$ ]	635
$T_{10}^{7.6}$ [ $^\circ C$ ]	710
$c_p$ [J/(g·K)]	0.660
$\lambda$ [W/(m·K)]	0.880
$\rho$ [g/cm <sup>3</sup> ]	3.53
$E$ [ $10^3$ N/mm <sup>2</sup> ]	108
$\mu$	0.288
$K$ [ $10^{-6}$ mm <sup>2</sup> /N]	1.86
$HK_{0.1/20}$	721
HG	
B	2
CR	2
FR	2
SR	53
AR	1.3
PR	4.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T$ [ $10^{-6}/K$ ]			$\Delta n_{abs}/\Delta T$ [ $10^{-6}/K$ ]		
	1060.0	e	g	1060.0	e	g
-40/ -20						
+20/ +40						
+60/ +80						

## LASF35 022291.541

$n_d = 2.02204$	$v_d = 29.06$	$n_F - n_C = 0.035170$
$n_e = 2.03035$	$v_e = 28.84$	$n_{F'} - n_{C'} = 0.035721$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.95946
$n_{1970.1}$	1970.1	1.96639
$n_{1529.6}$	1529.6	1.97472
$n_{1060.0}$	1060.0	1.98624
$n_t$	1014.0	1.98786
$n_s$	852.1	1.99531
$n_r$	706.5	2.00628
$n_C$	656.3	2.01185
$n_{C'}$	643.8	2.01343
$n_{632.8}$	632.8	2.01493
$n_D$	589.3	2.02173
$n_d$	587.6	2.02204
$n_e$	546.1	2.03035
$n_F$	486.1	2.04702
$n_{F'}$	480.0	2.04916
$n_g$	435.8	2.06805
$n_h$	404.7	2.08663
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.787	0.550
2325	0.877	0.720
1970	0.973	0.934
1530	0.995	0.987
1060	0.998	0.994
700	0.992	0.981
660	0.990	0.974
620	0.987	0.969
580	0.985	0.962
546	0.977	0.943
500	0.948	0.874
460	0.903	0.774
436	0.852	0.670
420	0.787	0.550
405	0.686	0.390
400	0.634	0.320
390	0.504	0.180
380	0.302	0.050
370	0.100	
365	0.030	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2118
$P_{C,s}$	0.4701
$P_{d,C}$	0.2899
$P_{e,d}$	0.2364
$P_{g,F}$	0.5982
$P_{i,h}$	
$P'_{s,t}$	0.2086
$P'_{C',s}$	0.5073
$P'_{d,C'}$	0.2409
$P'_{e,d}$	0.2327
$P'_{g,F'}$	0.5291
$P'_{i,h}$	

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

$\Delta P_{C,t}$	-0.0009
$\Delta P_{C,s}$	-0.0006
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0033
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	2.45505861
$B_2$	0.453006077
$B_3$	2.3851308
$C_1$	0.0135670404
$C_2$	0.054580302
$C_3$	167.904715

Constants of Dispersion $dn/dT$	
$D_0$	$1.43 \cdot 10^{-7}$
$D_1$	$8.71 \cdot 10^{-9}$
$D_2$	$-2.71 \cdot 10^{-11}$
$E_0$	$1.02 \cdot 10^{-6}$
$E_1$	$1.50 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.263

Color Code	
$\lambda_{80}/\lambda_5$	45/37*
(*= $\lambda_{70}/\lambda_5$ )	

Remarks
inquiry glass

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.4
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	8.5
$T_g [^\circ C]$	774
$T_{10}^{13.0} [^\circ C]$	0
$T_{10}^{7.6} [^\circ C]$	0
$c_p [J/(g \cdot K)]$	0.445
$\lambda [W/(m \cdot K)]$	0.920
$\rho [g/cm^3]$	5.41
$E [10^3 N/mm^2]$	132
$\mu$	0.303
$K [10^{-6} mm^2/N]$	0.73
$HK_{0.1/20}$	810
HG	1
B	2
CR	1
FR	0
SR	1.3
AR	1
PR	1.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.6	5.0	7.8	-0.1	2.2	5.0
+20/ +40	2.7	5.5	9.0	1.0	3.8	7.1
+60/ +80	2.8	5.9	9.7	1.4	4.5	8.3

## LF5G15 584408.322

$n_d = 1.58397$	$v_d = 40.83$	$n_F - n_C = 0.014301$
$n_e = 1.58736$	$v_e = 40.55$	$n_{F'} - n_{C'} = 0.014484$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.55252
$n_{1970.1}$	1970.1	1.55707
$n_{1529.6}$	1529.6	1.56225
$n_{1060.0}$	1060.0	1.56842
$n_t$	1014.0	1.56920
$n_s$	852.1	1.57263
$n_r$	706.5	1.57739
$n_C$	656.3	1.57974
$n_{C'}$	643.8	1.58041
$n_{632.8}$	632.8	1.58103
$n_D$	589.3	1.58384
$n_d$	587.6	1.58397
$n_e$	546.1	1.58736
$n_F$	486.1	1.59404
$n_{F'}$	480.0	1.59489
$n_g$	435.8	1.60228
$n_h$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.693	0.400
2325	0.770	0.520
1970	0.912	0.795
1530	0.994	0.985
1060	0.999	0.998
700	0.997	0.992
660	0.996	0.989
620	0.995	0.987
580	0.993	0.984
546	0.991	0.979
500	0.985	0.963
460	0.966	0.918
436	0.917	0.805
420	0.833	0.632
405	0.657	0.350
400	0.569	0.244
390	0.350	0.070
380	0.134	
370	0.020	
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2397
$P_{C,s}$	0.4975
$P_{d,C}$	0.2957
$P_{e,d}$	0.2372
$P_{g,F}$	0.5759
$P_{i,h}$	
$P'_{s,t}$	0.2367
$P'_{C',s}$	0.5372
$P'_{d,C'}$	0.2460
$P'_{e,d}$	0.2342
$P'_{g,F'}$	0.5101
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0015
$\Delta P_{C,s}$	-0.0006
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0008
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.28887331
$B_2$	0.162818811
$B_3$	10.5579792
$C_1$	0.0092001566
$C_2$	0.0456954308
$C_3$	1275.44015

Constants of Dispersion $dn/dT$	
$D_0$	
$D_1$	
$D_2$	
$E_0$	
$E_1$	
$\lambda_{TK}$ [ $\mu m$ ]	

Color Code	
$\lambda_{80}/\lambda_5$	43/37
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
radiation resistant glass	

Other Properties	
$\alpha_{-30/+70^\circ C}$ [ $10^{-6}/K$ ]	9.3
$\alpha_{+20/+300^\circ C}$ [ $10^{-6}/K$ ]	10.7
$T_g$ [ $^\circ C$ ]	407
$T_{10}^{13.0}$ [ $^\circ C$ ]	412
$T_{10}^{7.6}$ [ $^\circ C$ ]	578
$c_p$ [J/(g·K)]	0.600
$\lambda$ [W/(m·K)]	0.860
$\rho$ [g/cm <sup>3</sup> ]	3.22
$E$ [ $10^3$ N/mm <sup>2</sup> ]	60
$\mu$	0.228
$K$ [ $10^{-6}$ mm <sup>2</sup> /N]	2.77
$HK_{0.1/20}$	446
HG	
B	
CR	2
FR	0
SR	1
AR	1.3
PR	2.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T$ [ $10^{-6}/K$ ]			$\Delta n_{abs}/\Delta T$ [ $10^{-6}/K$ ]		
	1060.0	e	g	1060.0	e	g
-40/ -20						
+20/ +40						
+60/ +80						

## LF5G19 597399.330

$n_d = 1.59655$	$v_d = 39.89$	$n_F - n_C = 0.014954$
$n_e = 1.60010$	$v_e = 39.60$	$n_{F'} - n_{C'} = 0.015153$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.56416
$n_{1970.1}$	1970.1	1.56890
$n_{1529.6}$	1529.6	1.57419
$n_{1060.0}$	1060.0	1.58045
$n_t$	1014.0	1.58125
$n_s$	852.1	1.58477
$n_r$	706.5	1.58970
$n_C$	656.3	1.59214
$n_{C'}$	643.8	1.59284
$n_{632.8}$	632.8	1.59349
$n_D$	589.3	1.59642
$n_d$	587.6	1.59655
$n_e$	546.1	1.60010
$n_F$	486.1	1.60710
$n_{F'}$	480.0	1.60799
$n_g$	435.8	1.61578
$n_h$	404.7	1.62330
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.525	0.200
2325	0.631	0.316
1970	0.870	0.707
1530	0.992	0.979
1060	0.999	0.998
700	0.997	0.993
660	0.995	0.987
620	0.993	0.983
580	0.991	0.977
546	0.986	0.966
500	0.973	0.934
460	0.929	0.832
436	0.822	0.612
420	0.657	0.350
405	0.382	0.090
400	0.276	0.040
390	0.090	
380		
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2355
$P_{C,s}$	0.4930
$P_{d,C}$	0.2946
$P_{e,d}$	0.2370
$P_{g,F}$	0.5803
$P_{i,h}$	
$P'_{s,t}$	0.2324
$P'_{C',s}$	0.5322
$P'_{d,C'}$	0.2451
$P'_{e,d}$	0.2339
$P'_{g,F'}$	0.5139
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0056
$\Delta P_{C,s}$	-0.0028
$\Delta P_{F,e}$	0.0009
$\Delta P_{g,F}$	0.0036
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.34611327
$B_2$	0.142428018
$B_3$	0.900477176
$C_1$	0.0097174385
$C_2$	0.0501911619
$C_3$	111.959703

Color Code	
$\lambda_{80}/\lambda_5$	45/39
(*= $\lambda_{70}/\lambda_5$ )	

Remarks	
radiation resistant glass	

Constants of Dispersion $dn/dT$	
$D_0$	$-8.15 \cdot 10^{-6}$
$D_1$	$1.34 \cdot 10^{-8}$
$D_2$	$-9.22 \cdot 10^{-12}$
$E_0$	$8.57 \cdot 10^{-7}$
$E_1$	$8.26 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.243

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	10.7
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	11.4
$T_g [^\circ C]$	474
$T_{10}^{13.0} [^\circ C]$	462
$T_{10}^{7.6} [^\circ C]$	606
$c_p [J/(g \cdot K)]$	0.580
$\lambda [W/(m \cdot K)]$	0.750
$\rho [g/cm^3]$	3.30
$E [10^3 N/mm^2]$	56
$\mu$	0.242
$K [10^{-6} mm^2/N]$	2.80
$HK_{0.1/20}$	410
HG	2
B	1
CR	3
FR	2
SR	3.4
AR	2.2
PR	3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	-2.1	-0.9	0.4	-4.2	-3.1	-1.8
+20/ +40	-2.0	-0.7	0.8	-3.3	-2.1	-0.6
+60/ +80	-1.8	-0.3	1.3	-2.8	-1.4	0.1

## N-BAF3 583466.279

$n_d = 1.58272$	$v_d = 46.64$	$n_F - n_C = 0.012495$
$n_e = 1.58569$	$v_e = 46.35$	$n_{F'} - n_{C'} = 0.012637$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.54998
$n_{1970.1}$	1970.1	1.55574
$n_{1529.6}$	1529.6	1.56192
$n_{1060.0}$	1060.0	1.56850
$n_t$	1014.0	1.56927
$n_s$	852.1	1.57254
$n_r$	706.5	1.57689
$n_C$	656.3	1.57899
$n_{C'}$	643.8	1.57958
$n_{632.8}$	632.8	1.58013
$n_D$	589.3	1.58261
$n_d$	587.6	1.58272
$n_e$	546.1	1.58569
$n_F$	486.1	1.59149
$n_{F'}$	480.0	1.59222
$n_g$	435.8	1.59857
$n_h$	404.7	1.60463
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.733	0.460
2325	0.847	0.660
1970	0.954	0.890
1530	0.992	0.980
1060	0.997	0.993
700	0.998	0.994
660	0.997	0.992
620	0.996	0.991
580	0.997	0.993
546	0.996	0.991
500	0.994	0.985
460	0.990	0.975
436	0.986	0.965
420	0.981	0.952
405	0.967	0.920
400	0.959	0.900
390	0.924	0.820
380	0.852	0.670
370	0.693	0.400
365	0.565	0.240
350	0.063	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2616
$P_{C,s}$	0.5160
$P_{d,C}$	0.2987
$P_{e,d}$	0.2375
$P_{g,F}$	0.5669
$P_{i,h}$	
$P'_{s,t}$	0.2587
$P'_{C',s}$	0.5569
$P'_{d,C'}$	0.2487
$P'_{e,d}$	0.2348
$P'_{g,F'}$	0.5026
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0114
$\Delta P_{C,s}$	0.0044
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	0.0015
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.34859634
$B_2$	0.10764424
$B_3$	1.13207084
$C_1$	0.00871492932
$C_2$	0.0478406436
$C_3$	112.936116

Constants of Dispersion $dn/dT$	
$D_0$	$1.40 \cdot 10^{-6}$
$D_1$	$1.24 \cdot 10^{-8}$
$D_2$	$-9.39 \cdot 10^{-12}$
$E_0$	$5.91 \cdot 10^{-7}$
$E_1$	$7.44 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.235

Color Code	
$\lambda_{80}/\lambda_5$	39/35
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.2
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	8.2
$T_g [^\circ C]$	583
$T_{10}^{13.0} [^\circ C]$	573
$T_{10}^{7.6} [^\circ C]$	714
$c_p [J/(g \cdot K)]$	0.760
$\lambda [W/(m \cdot K)]$	1.040
$\rho [g/cm^3]$	2.79
$E [10^3 N/mm^2]$	82
$\mu$	0.226
$K [10^{-6} mm^2/N]$	2.73
$HK_{0.1/20}$	560
HG	2
B	1
CR	1
FR	0
SR	1
AR	1
PR	1

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.4	3.2	4.1	0.3	1.1	1.9
+20/ +40	2.4	3.4	4.4	1.0	2.0	3.0
+60/ +80	2.5	3.6	4.8	1.5	2.5	3.7

## N-LAF3 717480.414

$n_d = 1.71700$	$v_d = 47.96$	$n_F - n_C = 0.014950$
$n_e = 1.72055$	$v_e = 47.68$	$n_{F'} - n_{C'} = 0.015112$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.68061
$n_{1970.1}$	1970.1	1.68653
$n_{1529.6}$	1529.6	1.69297
$n_{1060.0}$	1060.0	1.70017
$n_t$	1014.0	1.70105
$n_s$	852.1	1.70485
$n_r$	706.5	1.71001
$n_C$	656.3	1.71252
$n_{C'}$	643.8	1.71323
$n_{632.8}$	632.8	1.71389
$n_D$	589.3	1.71687
$n_d$	587.6	1.71700
$n_e$	546.1	1.72055
$n_F$	486.1	1.72747
$n_{F'}$	480.0	1.72834
$n_g$	435.8	1.73585
$n_h$	404.7	1.74293
$n_i$	365.0	1.75530
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.626	0.310
2325	0.804	0.580
1970	0.950	0.880
1530	0.992	0.980
1060	0.997	0.993
700	0.997	0.993
660	0.997	0.993
620	0.997	0.993
580	0.997	0.993
546	0.997	0.993
500	0.994	0.985
460	0.987	0.968
436	0.982	0.955
420	0.976	0.940
405	0.963	0.910
400	0.954	0.890
390	0.928	0.830
380	0.877	0.720
370	0.782	0.540
365	0.707	0.420
350	0.314	0.060
334	0.006	
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2538
$P_{C,s}$	0.5132
$P_{d,C}$	0.2994
$P_{e,d}$	0.2379
$P_{g,F}$	0.5603
$P_{i,h}$	0.8274
$P'_{s,t}$	0.2511
$P'_{C',s}$	0.5545
$P'_{d,C'}$	0.2494
$P'_{e,d}$	0.2353
$P'_{g,F'}$	0.4967
$P'_{i,h}$	0.8185

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0054
$\Delta P_{C,s}$	-0.0015
$\Delta P_{F,e}$	-0.0005
$\Delta P_{g,F}$	-0.0028
$\Delta P_{i,g}$	-0.0210

Constants of Dispersion Formula	
$B_1$	1.73155854
$B_2$	0.150874455
$B_3$	1.06586596
$C_1$	0.00953833914
$C_2$	0.0407887211
$C_3$	98.0758545

Color Code	
$\lambda_{80}/\lambda_5$	39/34
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Constants of Dispersion $dn/dT$	
$D_0$	$-2.35 \cdot 10^{-6}$
$D_1$	$1.07 \cdot 10^{-8}$
$D_2$	$-9.38 \cdot 10^{-12}$
$E_0$	$5.72 \cdot 10^{-7}$
$E_1$	$6.01 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.22

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.6
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	8.7
$T_g [^\circ C]$	646
$T_{10}^{13.0} [^\circ C]$	640
$T_{10}^{7.6} [^\circ C]$	740
$c_p [J/(g \cdot K)]$	
$\lambda [W/(m \cdot K)]$	
$\rho [g/cm^3]$	4.14
$E [10^3 N/mm^2]$	95
$\mu$	0.286
$K [10^{-6} mm^2/N]$	1.53
$HK_{0.1/20}$	580
<b>HG</b>	5
<b>B</b>	1
<b>CR</b>	2
<b>FR</b>	3
<b>SR</b>	52.3
<b>AR</b>	1.2
<b>PR</b>	3.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	0.6	1.5	2.5	-1.7	-0.8	0.1
+20/ +40	0.6	1.6	2.7	-0.9	0.1	1.2
+60/ +80	0.7	1.8	3.0	-0.4	0.7	1.8

## N-PSK53 620635.360

$n_d = 1.62014$	$v_d = 63.48$	$n_F - n_C = 0.009769$
$n_e = 1.62247$	$v_e = 63.19$	$n_{F'} - n_{C'} = 0.009851$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.59216
$n_{1970.1}$	1970.1	1.59732
$n_{1529.6}$	1529.6	1.60280
$n_{1060.0}$	1060.0	1.60851
$n_t$	1014.0	1.60917
$n_s$	852.1	1.61191
$n_r$	706.5	1.61547
$n_C$	656.3	1.61717
$n_{C'}$	643.8	1.61764
$n_{632.8}$	632.8	1.61808
$n_D$	589.3	1.62005
$n_d$	587.6	1.62014
$n_e$	546.1	1.62247
$n_F$	486.1	1.62694
$n_{F'}$	480.0	1.62749
$n_g$	435.8	1.63223
$n_h$	404.7	1.63662
$n_i$	365.0	1.64409
$n_{334.1}$	334.1	1.65211
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (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		

Relative Partial Dispersion	
$P_{s,t}$	0.2803
$P_{C,s}$	0.5384
$P_{d,C}$	0.3045
$P_{e,d}$	0.2385
$P_{g,F}$	0.5423
$P_{i,h}$	0.7641
$P'_{s,t}$	0.2779
$P'_{C',s}$	0.5820
$P'_{d,C'}$	0.2538
$P'_{e,d}$	0.2365
$P'_{g,F'}$	0.4814
$P'_{i,h}$	0.7577

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0274
$\Delta P_{C,s}$	-0.0125
$\Delta P_{F,e}$	0.0020
$\Delta P_{g,F}$	0.0053
$\Delta P_{i,g}$	0.0214

Constants of Dispersion Formula	
$B_1$	1.3434087
$B_2$	0.241417935
$B_3$	0.952896897
$C_1$	0.00675074317
$C_2$	0.0219910513
$C_3$	103.551457

Color Code	
$\lambda_{80}/\lambda_5$	36/31
(*= $\lambda_{70}/\lambda_5$ )	

Remarks
inquiry glass

Constants of Dispersion dn/dT	
$D_0$	$-9.29 \cdot 10^{-6}$
$D_1$	$5.78 \cdot 10^{-9}$
$D_2$	$8.87 \cdot 10^{-13}$
$E_0$	$4.59 \cdot 10^{-7}$
$E_1$	$5.86 \cdot 10^{-10}$
$\lambda_{TK}[\mu m]$	0.155

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	9.4
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	10.9
$T_g [^\circ C]$	618
$T_{10}^{13.0} [^\circ C]$	606
$T_{10}^{7.6} [^\circ C]$	709
$c_p [J/(g \cdot K)]$	
$\lambda [W/(m \cdot K)]$	
$\rho [g/cm^3]$	3.60
$E [10^3 N/mm^2]$	78
$\mu$	0.288
$K [10^{-6} mm^2/N]$	1.16
$HK_{0.1/20}$	440
<b>HG</b>	6
<b>B</b>	1
<b>CR</b>	2
<b>FR</b>	1
<b>SR</b>	52.3
<b>AR</b>	1.2
<b>PR</b>	4.3

Temperature Coefficients of Refractive Index						
[°C]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	-2.5	-2.0	-1.5	-4.7	-4.2	-3.8
+20/ +40	-2.9	-2.3	-1.8	-4.3	-3.8	-3.2
+60/ +80	-3.0	-2.3	-1.7	-4.1	-3.4	-2.8

## N-SF19 667331.290

$n_d = 1.66679$	$v_d = 33.12$	$n_F - n_C = 0.020131$
$n_e = 1.67154$	$v_e = 32.86$	$n_{F'} - n_{C'} = 0.020435$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.62384
$n_{1970.1}$	1970.1	1.63018
$n_{1529.6}$	1529.6	1.63723
$n_{1060.0}$	1060.0	1.64552
$n_t$	1014.0	1.64657
$n_s$	852.1	1.65120
$n_r$	706.5	1.65769
$n_C$	656.3	1.66092
$n_{C'}$	643.8	1.66184
$n_{632.8}$	632.8	1.66271
$n_D$	589.3	1.66661
$n_d$	587.6	1.66679
$n_e$	546.1	1.67154
$n_F$	486.1	1.68106
$n_{F'}$	480.0	1.68228
$n_g$	435.8	1.69309
$n_h$	404.7	1.70377
$n_i$	365.0	
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

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

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

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

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

Constants of Dispersion Formula	
$B_1$	1.52005444
$B_2$	0.17573947
$B_3$	1.43623424
$C_1$	0.01096144
$C_2$	0.0593248486
$C_3$	126.795151

Constants of Dispersion $dn/dT$	
$D_0$	$1.32 \cdot 10^{-6}$
$D_1$	$1.22 \cdot 10^{-8}$
$D_2$	$-1.36 \cdot 10^{-11}$
$E_0$	$7.64 \cdot 10^{-7}$
$E_1$	$1.09 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.279

Color Code	
$\lambda_{80}/\lambda_5$	40/36
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Temperature Coefficients of Refractive Index						
[°C]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.5	3.9	5.5	0.3	1.6	3.2
+20/ +40	2.6	4.2	6.2	1.2	2.7	4.7
+60/ +80	2.8	4.6	6.8	1.7	3.4	5.6

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.2
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	8.3
$T_g [^\circ C]$	598
$T_{10}^{13.0} [^\circ C]$	585
$T_{10}^{7.6} [^\circ C]$	707
$c_p [J/(g \cdot K)]$	0.750
$\lambda [W/(m \cdot K)]$	1.020
$\rho [g/cm^3]$	2.90
$E [10^3 N/mm^2]$	88
$\mu$	0.231
$K [10^{-6} mm^2/N]$	2.93
$HK_{0.1/20}$	630
HG	3
B	1
CR	1
FR	0
SR	1
AR	1.2
PR	1

## N-SF56 785261.328

$n_d = 1.78470$	$v_d = 26.10$	$n_F - n_C = 0.030071$
$n_e = 1.79179$	$v_e = 25.89$	$n_{F'} - n_{C'} = 0.030587$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.73010
$n_{1970.1}$	1970.1	1.73664
$n_{1529.6}$	1529.6	1.74431
$n_{1060.0}$	1060.0	1.75442
$n_t$	1014.0	1.75581
$n_s$	852.1	1.76213
$n_r$	706.5	1.77137
$n_C$	656.3	1.77607
$n_{C'}$	643.8	1.77741
$n_{632.8}$	632.8	1.77868
$n_D$	589.3	1.78444
$n_d$	587.6	1.78470
$n_e$	546.1	1.79179
$n_F$	486.1	1.80614
$n_{F'}$	480.0	1.80800
$n_g$	435.8	1.82460
$n_h$	404.7	1.84126
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.810	0.590
2325	0.857	0.680
1970	0.959	0.900
1530	0.992	0.981
1060	0.998	0.996
700	0.994	0.986
660	0.992	0.981
620	0.992	0.981
580	0.993	0.983
546	0.990	0.976
500	0.980	0.950
460	0.963	0.910
436	0.941	0.860
420	0.905	0.780
405	0.837	0.640
400	0.799	0.570
390	0.672	0.370
380	0.442	0.130
370	0.109	
365	0.020	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2101
$P_{C,s}$	0.4635
$P_{d,C}$	0.2872
$P_{e,d}$	0.2356
$P_{g,F}$	0.6139
$P_{i,h}$	
$P'_{s,t}$	0.2065
$P'_{C',s}$	0.4996
$P'_{d,C'}$	0.2384
$P'_{e,d}$	0.2316
$P'_{g,F'}$	0.5427
$P'_{i,h}$	

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

$\Delta P_{C,t}$	0.0048
$\Delta P_{C,s}$	-0.0002
$\Delta P_{F,e}$	0.0026
$\Delta P_{g,F}$	0.0140
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.73562085
$B_2$	0.317487012
$B_3$	1.95398203
$C_1$	0.0129624742
$C_2$	0.0612884288
$C_3$	161.559441

Constants of Dispersion $dn/dT$	
$D_0$	$-4.13 \cdot 10^{-6}$
$D_1$	$7.65 \cdot 10^{-9}$
$D_2$	$-1.12 \cdot 10^{-11}$
$E_0$	$9.90 \cdot 10^{-7}$
$E_1$	$1.57 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.287

Color Code	
$\lambda_{80}/\lambda_5$	44/37
(*= $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	8.7
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	10.0
$T_g [^\circ C]$	592
$T_{10}^{13.0} [^\circ C]$	585
$T_{10}^{7.6} [^\circ C]$	691
$c_p [J/(g \cdot K)]$	0.700
$\lambda [W/(m \cdot K)]$	0.940
$\rho [g/cm^3]$	3.28
$E [10^3 N/mm^2]$	91
$\mu$	0.255
$K [10^{-6} mm^2/N]$	2.87
$HK_{0.1/20}$	560
$HG$	5
$B$	1
$CR$	1
$FR$	0
$SR$	1
$AR$	1.3
$PR$	1

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	-0.1	1.7	4.3	-2.5	-0.7	1.8
+20/ +40	-0.3	2.0	5.1	-1.8	0.5	3.5
+60/ +80	-0.2	2.4	5.9	-1.4	1.2	4.6

## N-SF64 706302.299

$n_d = 1.70591$	$v_d = 30.23$	$n_F - n_C = 0.023350$
$n_e = 1.71142$	$v_e = 29.99$	$n_{F'} - n_{C'} = 0.023720$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.65993
$n_{1970.1}$	1970.1	1.66607
$n_{1529.6}$	1529.6	1.67306
$n_{1060.0}$	1060.0	1.68176
$n_t$	1014.0	1.68291
$n_s$	852.1	1.68806
$n_r$	706.5	1.69544
$n_C$	656.3	1.69914
$n_{C'}$	643.8	1.70020
$n_{632.8}$	632.8	1.70119
$n_D$	589.3	1.70571
$n_d$	587.6	1.70591
$n_e$	546.1	1.71142
$n_F$	486.1	1.72249
$n_{F'}$	480.0	1.72392
$n_g$	435.8	1.73657
$n_h$	404.7	1.74912
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.770	0.520
2325	0.837	0.640
1970	0.950	0.880
1530	0.992	0.979
1060	0.998	0.996
700	0.994	0.985
660	0.992	0.980
620	0.992	0.981
580	0.994	0.984
546	0.993	0.982
500	0.984	0.961
460	0.971	0.930
436	0.957	0.895
420	0.934	0.843
405	0.882	0.730
400	0.852	0.670
390	0.746	0.480
380	0.546	0.220
370	0.209	0.020
365	0.078	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2204
$P_{C,s}$	0.4746
$P_{d,C}$	0.2898
$P_{e,d}$	0.2361
$P_{g,F}$	0.6028
$P_{i,h}$	
$P'_{s,t}$	0.2169
$P'_{C',s}$	0.5117
$P'_{d,C'}$	0.2407
$P'_{e,d}$	0.2324
$P'_{g,F'}$	0.5333
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0066
$\Delta P_{C,s}$	0.0012
$\Delta P_{F,e}$	0.0017
$\Delta P_{g,F}$	0.0099
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.59163762
$B_2$	0.219908428
$B_3$	1.46929315
$C_1$	0.0118623434
$C_2$	0.0594585499
$C_3$	133.310762

Constants of Dispersion $dn/dT$	
$D_0$	$-2.06 \cdot 10^{-6}$
$D_1$	$9.78 \cdot 10^{-9}$
$D_2$	$-1.67 \cdot 10^{-11}$
$E_0$	$8.67 \cdot 10^{-7}$
$E_1$	$1.23 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.279

Color Code	
$\lambda_{80}/\lambda_5$	42/37
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	8.5
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	9.8
$T_g [^\circ C]$	572
$T_{10}^{13.0} [^\circ C]$	576
$T_{10}^{7.6} [^\circ C]$	688
$c_p [J/(g \cdot K)]$	0.750
$\lambda [W/(m \cdot K)]$	0.980
$\rho [g/cm^3]$	2.99
$E [10^3 N/mm^2]$	88
$\mu$	0.245
$K [10^{-6} mm^2/N]$	2.95
$HK_{0.1/20}$	620
HG	4
B	1
CR	1
FR	0
SR	1
AR	1.2
PR	1

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	0.9	2.4	4.4	-1.3	0.1	2.0
+20/ +40	0.9	2.7	5.1	-0.6	1.2	3.5
+60/ +80	1.0	3.0	5.6	-0.1	1.9	4.4

## N-SK10 623570.364

$n_d = 1.62278$	$v_d = 56.98$	$n_F - n_C = 0.010929$
$n_e = 1.62539$	$v_e = 56.70$	$n_{F'} - n_{C'} = 0.011029$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.59310
$n_{1970.1}$	1970.1	1.59837
$n_{1529.6}$	1529.6	1.60400
$n_{1060.0}$	1060.0	1.61000
$n_t$	1014.0	1.61071
$n_s$	852.1	1.61367
$n_r$	706.5	1.61759
$n_C$	656.3	1.61947
$n_{C'}$	643.8	1.62000
$n_{632.8}$	632.8	1.62049
$n_D$	589.3	1.62268
$n_d$	587.6	1.62278
$n_e$	546.1	1.62539
$n_F$	486.1	1.63040
$n_{F'}$	480.0	1.63102
$n_g$	435.8	1.63638
$n_h$	404.7	1.64137
$n_i$	365.0	1.64989
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.733	0.460
2325	0.852	0.670
1970	0.967	0.920
1530	0.992	0.980
1060	0.998	0.994
700	0.998	0.995
660	0.997	0.993
620	0.998	0.994
580	0.998	0.996
546	0.998	0.996
500	0.998	0.995
460	0.996	0.990
436	0.995	0.987
420	0.994	0.985
405	0.990	0.975
400	0.988	0.970
390	0.980	0.950
380	0.963	0.910
370	0.933	0.840
365	0.910	0.790
350	0.770	0.520
334	0.414	0.110
320	0.068	
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2714
$P_{C,s}$	0.5302
$P_{d,C}$	0.3029
$P_{e,d}$	0.2384
$P_{g,F}$	0.5474
$P_{i,h}$	0.7803
$P'_{s,t}$	0.2689
$P'_{C',s}$	0.5731
$P'_{d,C'}$	0.2525
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4857
$P'_{i,h}$	0.7732

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	-0.0137
$\Delta P_{C,s}$	-0.0055
$\Delta P_{F,e}$	0.0003
$\Delta P_{g,F}$	-0.0005
$\Delta P_{i,g}$	-0.0103

Constants of Dispersion Formula	
$B_1$	1.34972093
$B_2$	0.238587973
$B_3$	0.9667336
$C_1$	0.00736272269
$C_2$	0.0253765327
$C_3$	103.502909

Constants of Dispersion $dn/dT$	
$D_0$	$5.05 \cdot 10^{-7}$
$D_1$	$1.16 \cdot 10^{-8}$
$D_2$	$-1.53 \cdot 10^{-11}$
$E_0$	$4.90 \cdot 10^{-7}$
$E_1$	$5.10 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.183

Color Code	
$\lambda_{80}/\lambda_5$	36/32
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	6.8
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	7.8
$T_g [^\circ C]$	633
$T_{10}^{13.0} [^\circ C]$	635
$T_{10}^{7.6} [^\circ C]$	758
$c_p [J/(g \cdot K)]$	0.540
$\lambda [W/(m \cdot K)]$	0.770
$\rho [g/cm^3]$	3.64
$E [10^3 N/mm^2]$	81
$\mu$	0.266
$K [10^{-6} mm^2/N]$	2.25
$HK_{0.1/20}$	550
HG	3
B	1
CR	3
FR	3
SR	52.2
AR	2
PR	2.2

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.0	2.7	3.3	-0.2	0.4	1.0
+20/ +40	2.0	2.7	3.5	0.6	1.3	2.0
+60/ +80	2.1	2.9	3.7	1.0	1.8	2.6

## N-SK15 623580.362

$n_d = 1.62296$	$v_d = 58.02$	$n_F - n_C = 0.010737$
$n_e = 1.62552$	$v_e = 57.75$	$n_{F'} - n_{C'} = 0.010832$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.59268
$n_{1970.1}$	1970.1	1.59822
$n_{1529.6}$	1529.6	1.60411
$n_{1060.0}$	1060.0	1.61027
$n_t$	1014.0	1.61098
$n_s$	852.1	1.61396
$n_r$	706.5	1.61785
$n_C$	656.3	1.61970
$n_{C'}$	643.8	1.62022
$n_{632.8}$	632.8	1.62070
$n_D$	589.3	1.62286
$n_d$	587.6	1.62296
$n_e$	546.1	1.62552
$n_F$	486.1	1.63044
$n_{F'}$	480.0	1.63105
$n_g$	435.8	1.63629
$n_h$	404.7	1.64116
$n_i$	365.0	1.64947
$n_{334.1}$	334.1	1.65846
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.672	0.370
2325	0.826	0.620
1970	0.959	0.900
1530	0.990	0.975
1060	0.996	0.991
700	0.998	0.994
660	0.997	0.992
620	0.997	0.992
580	0.997	0.993
546	0.997	0.993
500	0.996	0.990
460	0.993	0.982
436	0.991	0.978
420	0.990	0.974
405	0.986	0.966
400	0.984	0.960
390	0.976	0.941
380	0.963	0.910
370	0.937	0.850
365	0.915	0.800
350	0.795	0.563
334	0.504	0.180
320	0.144	
310	0.010	
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2770
$P_{C,s}$	0.5348
$P_{d,C}$	0.3036
$P_{e,d}$	0.2384
$P_{g,F}$	0.5453
$P_{i,h}$	0.7742
$P'_{s,t}$	0.2746
$P'_{C',s}$	0.5780
$P'_{d,C'}$	0.2531
$P'_{e,d}$	0.2363
$P'_{g,F'}$	0.4840
$P'_{i,h}$	0.7674

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

$\Delta P_{C,t}$	-0.0084
$\Delta P_{C,s}$	-0.0033
$\Delta P_{F,e}$	0.0001
$\Delta P_{g,F}$	-0.0009
$\Delta P_{i,g}$	-0.0102

Constants of Dispersion Formula	
$B_1$	1.30417786
$B_2$	0.28584116
$B_3$	0.974781572
$C_1$	0.00695051276
$C_2$	0.0232023703
$C_3$	99.016884

Constants of Dispersion $dn/dT$	
$D_0$	$4.92 \cdot 10^{-7}$
$D_1$	$1.20 \cdot 10^{-8}$
$D_2$	$-2.96 \cdot 10^{-12}$
$E_0$	$4.66 \cdot 10^{-7}$
$E_1$	$5.16 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.179

Color Code	
$\lambda_{80}/\lambda_5$	36/31
(* = $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	6.7
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	7.6
$T_g [^\circ C]$	641
$T_{10}^{13.0} [^\circ C]$	634
$T_{10}^{7.6} [^\circ C]$	752
$c_p [J/(g \cdot K)]$	0.570
$\lambda [W/(m \cdot K)]$	0.770
$\rho [g/cm^3]$	3.62
$E [10^3 N/mm^2]$	84
$\mu$	0.265
$K [10^{-6} mm^2/N]$	1.93
$HK_{0.1/20}$	620
<b>HG</b>	3
<b>B</b>	1
<b>CR</b>	3
<b>FR</b>	3
<b>SR</b>	52.2
<b>AR</b>	2
<b>PR</b>	3.2

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	2.0	2.6	3.2	-0.2	0.4	1.0
+20/ +40	2.0	2.7	3.4	0.6	1.3	1.9
+60/ +80	2.1	2.9	3.7	1.1	1.8	2.5

## SF6G05 809253.520

$n_d = 1.80906$	$v_d = 25.28$	$n_F - n_C = 0.032015$
$n_e = 1.81661$	$v_e = 25.08$	$n_{F'} - n_{C'} = 0.032570$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.75661
$n_{1970.1}$	1970.1	1.76163
$n_{1529.6}$	1529.6	1.76797
$n_{1060.0}$	1060.0	1.77741
$n_t$	1014.0	1.77879
$n_s$	852.1	1.78524
$n_r$	706.5	1.79491
$n_C$	656.3	1.79988
$n_{C'}$	643.8	1.80131
$n_{632.8}$	632.8	1.80265
$n_D$	589.3	1.80878
$n_d$	587.6	1.80906
$n_e$	546.1	1.81661
$n_F$	486.1	1.83190
$n_{F'}$	480.0	1.83387
$n_g$	435.8	
$n_h$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.847	0.660
2325	0.877	0.721
1970	0.965	0.915
1530	0.995	0.987
1060	0.998	0.994
700	0.985	0.962
660	0.980	0.950
620	0.972	0.931
580	0.958	0.898
546	0.917	0.805
500	0.642	0.330
460	0.090	0.080
436		
420		
405		
400		
390		
380		
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2013
$P_{C,s}$	0.4574
$P_{d,C}$	0.2866
$P_{e,d}$	0.2358
$P_{g,F}$	0.6121
$P_{i,h}$	
$P'_{s,t}$	0.1979
$P'_{C',s}$	0.4933
$P'_{d,C'}$	0.2380
$P'_{e,d}$	0.2318
$P'_{g,F'}$	0.0000
$P'_{i,h}$	

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

$\Delta P_{C,t}$	-0.0062
$\Delta P_{C,s}$	-0.0044
$\Delta P_{F,e}$	0.0025
$\Delta P_{g,F}$	0.1080
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.62113942
$B_2$	0.506586092
$B_3$	10.4032298
$C_1$	0.0113478992
$C_2$	0.0535840223
$C_3$	1118.83658

Constants of Dispersion $dn/dT$	
$D_0$	$6.90 \cdot 10^{-6}$
$D_1$	$1.76 \cdot 10^{-8}$
$D_2$	$-3.17 \cdot 10^{-11}$
$E_0$	$1.89 \cdot 10^{-6}$
$E_1$	$1.50 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.256

Color Code	
$\lambda_{80}/\lambda_5$	52/46*
(*= $\lambda_{70}/\lambda_5$ )	

Remarks
radiation resistant glass

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.8
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	
$T_g [^\circ C]$	427
$T_{10}^{13.0} [^\circ C]$	0
$T_{10}^{7.6} [^\circ C]$	529
$c_p [J/(g \cdot K)]$	
$\lambda [W/(m \cdot K)]$	
$\rho [g/cm^3]$	5.20
$E [10^3 N/mm^2]$	
$\mu$	
$K [10^{-6} mm^2/N]$	
$HK_{0.1/20}$	360
$HG$	
$B$	1
$CR$	4
$FR$	3
$SR$	51.3
$AR$	2.3
$PR$	3.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	6.4	10.3		4.0	7.8	
+20/ +40	7.0	11.4		5.5	9.8	
+60/ +80	7.5	12.1		6.3	10.9	

**SFL6**  
**805254.337**

$n_d = 1.80518$	$v_d = 25.39$	$n_F - n_C = 0.031708$
$n_e = 1.81265$	$v_e = 25.19$	$n_{F'} - n_{C'} = 0.032260$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.74897
$n_{1970.1}$	1970.1	1.75544
$n_{1529.6}$	1529.6	1.76311
$n_{1060.0}$	1060.0	1.77345
$n_t$	1014.0	1.77489
$n_s$	852.1	1.78147
$n_r$	706.5	1.79116
$n_C$	656.3	1.79609
$n_{C'}$	643.8	1.79751
$n_{632.8}$	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	1.82780
$n_{F'}$	480.0	1.82977
$n_g$	435.8	1.84733
$n_h$	404.7	1.86500
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
<b>2500</b>		
<b>2325</b>	0.930	0.840
<b>1970</b>	0.980	0.950
<b>1530</b>	0.998	0.995
<b>1060</b>	0.995	0.988
<b>700</b>	0.996	0.989
<b>660</b>	0.995	0.988
<b>620</b>	0.993	0.983
<b>580</b>	0.992	0.980
<b>546</b>	0.988	0.970
<b>500</b>	0.976	0.940
<b>460</b>	0.959	0.900
<b>436</b>	0.940	0.860
<b>420</b>	0.920	0.810
<b>405</b>	0.880	0.720
<b>400</b>	0.850	0.670
<b>390</b>	0.770	0.520
<b>380</b>	0.570	0.250
<b>370</b>	0.210	0.020
<b>365</b>		
<b>350</b>		
<b>334</b>		
<b>320</b>		
<b>310</b>		
<b>300</b>		
<b>290</b>		
<b>280</b>		
<b>270</b>		
<b>260</b>		
<b>250</b>		

Relative Partial Dispersion	
$P_{s,t}$	0.2075
$P_{C,s}$	0.4611
$P_{d,C}$	0.2867
$P_{e,d}$	0.2355
$P_{g,F}$	0.6159
$P_{i,h}$	
$P'_{s,t}$	0.2040
$P'_{C',s}$	0.4970
$P'_{d,C'}$	0.2380
$P'_{e,d}$	0.2315
$P'_{g,F'}$	0.5444
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0032
$\Delta P_{C,s}$	-0.0010
$\Delta P_{F,e}$	0.0027
$\Delta P_{g,F}$	0.0148
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.78922056
$B_2$	0.328427448
$B_3$	2.01639441
$C_1$	0.0135163537
$C_2$	0.0622729599
$C_3$	168.014713

Constants of Dispersion $dn/dT$	
$D_0$	$-5.26 \cdot 10^{-6}$
$D_1$	$7.41 \cdot 10^{-9}$
$D_2$	$-1.89 \cdot 10^{-11}$
$E_0$	$1.02 \cdot 10^{-6}$
$E_1$	$1.62 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.288

Color Code	
$\lambda_{80}/\lambda_5$	45/37
(*= $\lambda_{70}/\lambda_5$ )	

Remarks	
inquiry glass	

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	9.0
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	10.3
$T_g [^\circ C]$	585
$T_{10}^{13.0} [^\circ C]$	592
$T_{10}^{7.6} [^\circ C]$	0
$c_p [J/(g \cdot K)]$	
$\lambda [W/(m \cdot K)]$	
$\rho [g/cm^3]$	3.37
$E [10^3 N/mm^2]$	93
$\mu$	0.260
$K [10^{-6} mm^2/N]$	2.79
$HK_{0.1/20}$	570
<b>HG</b>	
<b>B</b>	0
<b>CR</b>	1
<b>FR</b>	0
<b>SR</b>	2
<b>AR</b>	1
<b>PR</b>	1

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
<b>-40/ -20</b>	-0.8	1.1	3.8	-3.2	-1.4	1.2
<b>+20/ +40</b>	-1.0	1.4	4.7	-2.5	-0.1	3.1
<b>+60/ +80</b>	-0.9	1.8	5.4	-2.1	0.5	4.2

**SFL57**  
**847236.355**

$n_d = 1.84666$	$v_d = 23.62$	$n_F - n_C = 0.035841$
$n_e = 1.85510$	$v_e = 23.43$	$n_{F'} - n_{C'} = 0.036489$

Refractive Indices		
	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.78487
$n_{1970.1}$	1970.1	1.79171
$n_{1529.6}$	1529.6	1.79989
$n_{1060.0}$	1060.0	1.81117
$n_t$	1014.0	1.81276
$n_s$	852.1	1.82007
$n_r$	706.5	1.83089
$n_C$	656.3	1.83643
$n_{C'}$	643.8	1.83802
$n_{632.8}$	632.8	1.83952
$n_D$	589.3	1.84635
$n_d$	587.6	1.84666
$n_e$	546.1	1.85510
$n_F$	486.1	1.87227
$n_{F'}$	480.0	1.87451
$n_g$	435.8	1.89456
$n_h$	404.7	1.91488
$n_i$	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	

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (25mm)
2500	0.882	0.730
2325	0.910	0.790
1970	0.984	0.960
1530	0.996	0.990
1060	0.996	0.991
700	0.990	0.976
660	0.987	0.969
620	0.988	0.971
580	0.988	0.971
546	0.982	0.955
500	0.954	0.890
460	0.915	0.800
436	0.852	0.670
420	0.770	0.520
405	0.609	0.290
400	0.525	0.200
390	0.260	0.030
380	0.050	
370		
365		
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Relative Partial Dispersion	
$P_{s,t}$	0.2038
$P_{C,s}$	0.4566
$P_{d,C}$	0.2855
$P_{e,d}$	0.2353
$P_{g,F}$	0.6218
$P_{i,h}$	
$P'_{s,t}$	0.2002
$P'_{C',s}$	0.4920
$P'_{d,C'}$	0.2369
$P'_{e,d}$	0.2311
$P'_{g,F'}$	0.5495
$P'_{i,h}$	

Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"	
$\Delta P_{C,t}$	0.0034
$\Delta P_{C,s}$	-0.0014
$\Delta P_{F,e}$	0.0033
$\Delta P_{g,F}$	0.0177
$\Delta P_{i,g}$	

Constants of Dispersion Formula	
$B_1$	1.88742326
$B_2$	0.360534025
$B_3$	2.26189313
$C_1$	0.0145939341
$C_2$	0.0648198946
$C_3$	176.062211

Constants of Dispersion $dn/dT$	
$D_0$	$-3.63 \cdot 10^{-6}$
$D_1$	$8.61 \cdot 10^{-9}$
$D_2$	$-9.98 \cdot 10^{-12}$
$E_0$	$1.10 \cdot 10^{-6}$
$E_1$	$1.69 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.293

Color Code	
$\lambda_{80}/\lambda_5$	44/38*
(*= $\lambda_{70}/\lambda_5$ )	

Remarks
inquiry glass. lead containing

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	8.7
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	10.0
$T_g [^\circ C]$	598
$T_{10}^{13.0} [^\circ C]$	0
$T_{10}^{7.6} [^\circ C]$	700
$c_p [J/(g \cdot K)]$	0.670
$\lambda [W/(m \cdot K)]$	0.997
$\rho [g/cm^3]$	3.55
$E [10^3 N/mm^2]$	97
$\mu$	0.261
$K [10^{-6} mm^2/N]$	2.73
$HK_{0.1/20}$	580
<b>HG</b>	3
<b>B</b>	1
<b>CR</b>	1
<b>FR</b>	0
<b>SR</b>	1.3
<b>AR</b>	1
<b>PR</b>	1.3

Temperature Coefficients of Refractive Index						
[ $^\circ C$ ]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/ -20	0.1	2.4	5.6	-2.3	-0.1	3.0
+20/ +40	0.1	2.9	6.8	-1.5	1.2	5.1
+60/ +80	0.2	3.3	7.7	-1.0	2.1	6.4

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