

## SF57HTultra 847238.551

$n_d = 1.84666$	$v_d = 23.83$	$n_F - n_C = 0.035536$
$n_e = 1.85504$	$v_e = 23.64$	$n_F' - n_C' = 0.036166$

Refractive Indices		
	$\lambda$ [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
$n_f$	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
$B_3$	1.071862780
$C_1$	0.01437041980
$C_2$	0.0592801172
$C_3$	121.4199420

Constants of Formula for $dn/dT$	
$D_0$	7.26E-06
$D_1$	1.88E-08
$D_2$	-5.14E-11
$E_0$	1.96E-06
$E_1$	1.79E-09
$\lambda_{TK}$ [ $\mu\text{m}$ ]	0.276

Temperature Coefficients of the 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	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

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ [10mm]	$\tau_i$ [25mm]
2500	0.910	0.800
2325	0.930	0.840
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	0.940	0.860
400	0.920	0.820
390	0.830	0.630
380	0.620	0.300
370	0.250	0.030
365	0.100	
350		
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code	
$\lambda_{80} / \lambda_5$	39/36*

Remarks
lead containing glass type, suitable for precision molding, step 0.5 available

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 Dispersion $\Delta P$ 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	
$\alpha_{-30/+70^\circ\text{C}}$ [ $10^{-6}/K$ ]	8.3
$\alpha_{+20/+300^\circ\text{C}}$ [ $10^{-6}/K$ ]	9.2
$T_g$ [°C]	414
$T_{10}^{13}$ [°C]	414
$T_{10}^{7.6}$ [°C]	507
$c_p$ [J/(g·K)]	0.360
$\lambda$ [W/(m·K)]	0.620
AT [°C]	449
$\rho$ [g/cm <sup>3</sup> ]	5.51
E [ $10^3$ N/mm <sup>2</sup> ]	54
$\mu$	0.248
K [ $10^{-6}$ mm <sup>2</sup> /N]	0.02
HK <sub>0.1/20</sub>	350
HG	1
Abrasion Aa	344
CR	2
FR	5
SR	52.3
AR	2.3
PR	4.3
SR-J	6
WR-J	1