

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		
	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	

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		

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
$\Delta P_{i,g}$	

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	$1.79 \cdot 10^{-9}$
$\lambda_{TK} [\mu m]$	0.276

Color Code	
λ_{80}/λ_5	39/36*
(*= λ_{70}/λ_5)	

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

Other Properties	
$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	8.3
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	9.2
$T_g [^\circ C]$	414
$T_{10}^{13.0} [^\circ C]$	391
$T_{10}^{7.6} [^\circ C]$	519
$c_p [J/(g \cdot K)]$	0.360
$\lambda [W/(m \cdot K)]$	0.620
$AT [^\circ C]$	449
$\rho [g/cm^3]$	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
$Abrasion Aa$	344
CR	2
FR	5
SR	52.3
AR	2.3
PR	4.3
$SR-J$	6
$WR-J$	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	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