

**LF5**  
**581409.322**

$n_d = 1.58144$	$v_d = 40.85$	$n_F - n_C = 0.014233$
$n_e = 1.58482$	$v_e = 40.57$	$n_{F'} - n_{C'} = 0.014413$

Refractive Indices		
	$\lambda$ [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	
$D_0$	$-2.27 \cdot 10^{-6}$
$D_1$	$9.71 \cdot 10^{-9}$
$D_2$	$-2.83 \cdot 10^{-11}$
$E_0$	$8.36 \cdot 10^{-7}$
$E_1$	$9.95 \cdot 10^{-10}$
$\lambda_{TK} [\mu m]$	0.228

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	1.9	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

Internal Transmittance $\tau_i$		
$\lambda$ [nm]	$\tau_i$ (10mm)	$\tau_i$ (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	
$\lambda_{80} / \lambda_5$	34/31
(* = $\lambda_{70} / \lambda_5$ )	

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 $\Delta P$ 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	
$\alpha_{-30/+70^\circ C} [10^{-6} / K]$	9.1
$\alpha_{+20/+300^\circ C} [10^{-6} / K]$	10.6
$T_g [^\circ C]$	419
$T_{10}^{13.0} [^\circ C]$	411
$T_{10}^{7.6} [^\circ C]$	585
$c_p [J/(g \cdot K)]$	0.657
$\lambda [W/(m \cdot K)]$	0.866
$\rho [g/cm^3]$	3.22
$E [10^3 N/mm^2]$	59
$\mu$	0.223
$K [10^{-6} mm^2/N]$	2.83
$HK_{0.1/20}$	450
HG	2
CR	2
FR	0
SR	1
AR	2.3
PR	2