Datasheet

SCHOTT
glass made of ideas

LLF1
548458.294

n_d = 1.54814	ν_d = 45.75	$n_F - n_C$ = 0.011981
n_e = 1.55099	ν_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	1.216401250
B_2	0.133664540
B_3	0.883399468
C_1	0.008578072
C_2	0.0420143003
C_3	107.59306000

Constants of Formula for dn/dT

D_0	3.25E-07
D_1	1.74E-08
D_2	-6.12E-11
E_0	6.53E-07
E_1	2.58E-10
λ_{TK} [µm]	0.233

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.76	0.50
2325	0.82	0.61
1970	0.93	0.84
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	0.92	0.81
320	0.62	0.30
310	0.24	0.01
300	0.02	
290	0.00	
280		
270		
260		
250		

Color Code

λ80 / λ5	33/31

Remarks

lead containing glass type

Relative Partial Dispersion P

$P_{s,t}$	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

Relative Partial Dispersion P'

$P'_{s,t}$	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 Rel. Partial Disp. 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

Chemical Properties

CR	1
FR	0
SR	1
AR	2
PR	1

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{+20/+300°C}$ [10^{-6}/K]	9.2
T_g [°C]	431
$T_{10^{13}}$ [°C]	426
$T_{10^{7.6}}$ [°C]	628
c_p [J/(g*K)]	0.650
λ [W/(m•K)]	0.990
ρ [g/cm³]	2.94
E [10^3 N/mm²]	60
µ	0.208
K [10^{-6} mm²/N]	3.03
$HK_{0.1/20}$	450
HG	3

Temperature Coefficients of the 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