Datasheet

SF6G05
809253.520

n_d = 1.80906 ν_d = 25.27 $n_F - n_C$ = 0.032015
n_e = 1.81661 ν_e = 25.07 $n_{F'} - n_{C'}$ = 0.032570

Refractive Indices

	λ [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	

Constants of Dispersion Formula

B_1	1.621139420
B_2	0.506586092
B_3	10.403229800
C_1	0.011347899
C_2	0.0535840223
C_3	1118.83658000

Constants of Formula for dn/dT

D_0	6.90E-06
D_1	1.76E-08
D_2	-3.17E-11
E_0	1.89E-06
E_1	1.50E-09
λ_{TK} [µm]	0.256

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.850	0.660
2325	0.880	0.720
1970	0.965	0.910
1530	0.995	0.987
1060	0.998	0.994
700	0.985	0.962
660	0.980	0.950
620	0.972	0.930
580	0.958	0.900
546	0.920	0.810
500	0.640	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		

Color Code

λ70 /λ5	52/46

Remarks

lead containing glass type

suitable for precision molding

Relative Partial Dispersion P

$P_{s,t}$	0.2013
$P_{C,s}$	0.4574
$P_{d,C}$	0.2866
$P_{e,d}$	0.2358
$P_{g,F}$	0.6121
$P_{i,h}$	

Relative Partial Dispersion P'

$P'_{s,t}$	0.1979
$P'_{C',s}$	0.4933
$P'_{d,C'}$	0.2380
$P'_{e,d}$	0.2318
$P'_{g,F'}$	0.5409
$P'_{i,h}$	

Deviation of Rel. Partial Disp. ΔP from the normal line

$\Delta P_{C,t}$	-0.0062
$\Delta P_{C,s}$	-0.0044
$\Delta P_{F,e}$	0.0025
$\Delta P_{g,F}$	0.0108
$\Delta P_{i,g}$	

Chemical Properties

CR	4
FR	3
SR	51.3
AR	2.3
PR	3.3

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.8
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.8
T_g [°C]	427
$T_{10^{13}}$ [°C]	
$T_{10^{7.6}}$ [°C]	529
c_p [J/(g*K)]	
λ [W/(m•K)]	
ρ [g/cm³]	5.20
E [10^3 N/mm²]	
µ	
K [10^{-6} mm²/N]	
$HK_{0.1/20}$	360

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	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	