Datasheet

SCHOTT
glass made of ideas

N-KZFS11
638424.320

n_d = 1.63775	ν_d = 42.41	$n_F - n_C$ = 0.015038
n_e = 1.64132	ν_e = 42.20	$n_{F'} - n_{C'}$ = 0.015198

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.59699
$n_{1970.1}$	1970.1	1.60439
$n_{1529.6}$	1529.6	1.61223
$n_{1060.0}$	1060.0	1.62044
n_t	1014.0	1.62139
n_s	852.1	1.62540
n_r	706.5	1.63069
n_C	656.3	1.63324
$n_{C'}$	643.8	1.63395
$n_{632.8}$	632.8	1.63462
n_D	589.3	1.63762
n_d	587.6	1.63775
n_e	546.1	1.64132
n_F	486.1	1.64828
$n_{F'}$	480.0	1.64915
n_g	435.8	1.65670
n_h	404.7	1.66385
n_i	365.0	1.67636
$n_{334.1}$	334.1	1.69037
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.332224500
B_2	0.289241610
B_3	1.151617340
C_1	0.008402985
C_2	0.0344239720
C_3	88.43105320

Constants of Formula for dn/dT

D_0	3.34E-06
D_1	1.16E-08
D_2	-1.80E-11
E_0	6.32E-07
E_1	7.21E-10
λ_{TK} [µm]	0.206

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.510	0.180
2325	0.780	0.540
1970	0.965	0.910
1530	0.991	0.977
1060	0.999	0.999
700	0.998	0.994
660	0.997	0.992
620	0.997	0.992
580	0.997	0.992
546	0.997	0.993
500	0.996	0.989
460	0.993	0.982
436	0.991	0.978
420	0.990	0.975
405	0.988	0.971
400	0.987	0.968
390	0.983	0.957
380	0.976	0.940
370	0.963	0.910
365	0.950	0.880
350	0.880	0.730
334	0.730	0.450
320	0.470	0.150
310	0.230	0.020
300	0.050	
290		
280		
270		
260		
250		

Color Code

λ80 / λ5	36/30

Remarks

suitable for precision molding

step 0.5 available

Relative Partial Dispersion P

$P_{s,t}$	0.2664
$P_{C,s}$	0.5212
$P_{d,C}$	0.3000
$P_{e,d}$	0.2377
$P_{g,F}$	0.5605
$P_{i,h}$	0.8319

Relative Partial Dispersion P'

$P'_{s,t}$	0.2636
$P'_{C',s}$	0.5627
$P'_{d,C'}$	0.2499
$P'_{e,d}$	0.2352
$P'_{g,F'}$	0.4971
$P'_{i,h}$	0.8232

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

$\Delta P_{C,t}$	0.0415
$\Delta P_{C,s}$	0.0194
$\Delta P_{F,e}$	-0.0039
$\Delta P_{g,F}$	-0.0120
$\Delta P_{i,g}$	-0.0617

Chemical Properties

CR	1
FR	1
SR	3.4
AR	1
PR	1

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	6.6
$\alpha_{+20/+300°C}$ [10^{-6}/K]	7.6
T_g [°C]	551
$T_{10^{13}}$ [°C]	554
$T_{10^{7.6}}$ [°C]	
c_p [J/(g*K)]	0.690
λ [W/(m•K)]	0.810
ρ [g/cm³]	3.20
E [10^3 N/mm²]	79
µ	0.251
K [10^{-6} mm²/N]	4.21
$HK_{0.1/20}$	530
HG	3
Abrasion Aa	74

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	3.5	4.4	5.4	1.3	2.2	3.1
+20/+40	3.5	4.6	5.7	2.1	3.1	4.2
+60/+80	3.6	4.8	6.0	2.5	3.7	4.8