

N-FK58 456909.365

$n_d = 1.45600$
 $n_e = 1.45720$

$v_d = 90.90$
 $v_e = 90.47$

$n_F - n_C = 0.005017$
 $n_{F'} - n_{C'} = 0.005053$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.44114
$n_{1970.1}$	1970.1	1.44388
$n_{1529.6}$	1529.6	1.44683
$n_{1060.0}$	1060.0	1.44991
n_t	1014.0	1.45026
n_s	852.1	1.45171
n_r	706.5	1.45358
n_C	656.3	1.45446
$n_{C'}$	643.8	1.45471
$n_{632.8}$	632.8	1.45494
n_D	589.3	1.45596
n_d	587.6	1.45600
n_e	546.1	1.45720
n_F	486.1	1.45948
$n_{F'}$	480.0	1.45976
n_g	435.8	1.46216
n_h	404.7	1.46436
n_i	365.0	1.46807
$n_{334.1}$	334.1	1.47199
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	0.738042712
B_2	0.363371967
B_3	0.989296264
C_1	0.003390656
C_2	0.0117551189
C_3	212.84214500

Constants of Formula for dn/dT

D_0	-2.05E-05
D_1	-6.33E-09
D_2	4.13E-11
E_0	3.84E-07
E_1	1.63E-10
λ_{TK} [μm]	0.073

Temperature Coefficients of the 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	-5.4	-5.1	-4.8	-7.3	-7.1	-6.8
+20/+40	-6.5	-6.2	-5.9	-7.7	-7.4	-7.2
+60/+80	-6.8	-6.5	-6.2	-7.8	-7.5	-7.3

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.997	0.993
2325	0.998	0.996
1970	0.999	0.998
1530	0.999	0.998
1060	0.998	0.995
700	0.997	0.993
660	0.997	0.993
620	0.997	0.994
580	0.998	0.994
546	0.998	0.995
500	0.998	0.994
460	0.997	0.992
436	0.996	0.991
420	0.996	0.991
405	0.996	0.991
400	0.996	0.991
390	0.996	0.990
380	0.995	0.987
370	0.992	0.980
365	0.990	0.975
350	0.976	0.940
334	0.930	0.830
320	0.820	0.610
310	0.690	0.400
300	0.530	0.200
290	0.360	0.080
280	0.240	0.030
270	0.150	0.010
260	0.110	0.010
250	0.090	0.000

Color Code

λ_{80} / λ_5 33/--

Remarks

XLS glass

Relative Partial Dispersion P

$P_{s,t}$	0.2894
$P_{C,s}$	0.5481
$P_{d,C}$	0.3066
$P_{e,d}$	0.2388
$P_{g,F}$	0.5347
$P_{i,h}$	0.7387

Relative Partial Dispersion P'

$P'_{s,t}$	0.2873
$P'_{C,s}$	0.5927
$P'_{d,C'}$	0.2557
$P'_{e,d}$	0.2371
$P'_{g,F'}$	0.4749
$P'_{i,h}$	0.7334

Deviation of Rel. Partial Disp.

ΔP from the normal line

$\Delta P_{C,t}$	-0.1386
$\Delta P_{C,s}$	-0.0667
$\Delta P_{F,e}$	0.0140
$\Delta P_{g,F}$	0.0438
$\Delta P_{i,g}$	0.2157

Chemical Properties

CR	1
FR	1
SR	52.3
AR	3.3
PR	4.3
SR-J	4
WR-J	1

Other Properties

$\alpha_{-30/+70^\circ\text{C}}$ [$10^{-6}/K$]	13.7
$\alpha_{+20/+300^\circ\text{C}}$ [$10^{-6}/K$]	15.7
T_g [°C]	445
T_{10}^{13} [°C]	448
$T_{10}^{7.6}$ [°C]	508
c_p [J/(g·K)]	0.710
λ [W/(m·K)]	0.760
AT [°C]	475
ρ [g/cm ³]	3.65
E [10^3 N/mm ²]	70
μ	0.301
K [10^{-6} mm ² /N]	0.54
HK _{0.1/20}	372
HG	6